RELIGION AND THE REIGN OF SCIENCE

F. L. CROSS

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1930

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6 OLD COURT HOUSE STREET, CALCUTTA
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EDITORIAL FOREWORD

A FEW words seem desirable to explain the publication of a series of books, some of which may appear to differ widely in character from others, under the common title of the Anglican Library of Faith and Thought. The general intention is to offer a systematic treatment of some of the facts of religious experience and history, in such a manner as to illustrate the principles involved or implied in them. The authors invited to contribute to this series are men of thought, who would all attach a high value to the historical continuity and intellectual tradition of the Christian Church, but are at the same time fully conscious of the need for independent judgment and for sympathetic understanding of modern problems and processes. The books are not technical handbooks, but aim at presenting facts intelligently to the educated public, without any sacrifice of interest and attractiveness.

It should be said that the original suggestion of the series was made by the Literature Committee of the English Church Union, a body of some fifty well-known scholars of the Anglican Communion. But the Union assumes no responsibility for any more than the projection of the series and the appointment, jointly with Messrs. Longmans, Green and Co., of the Editor. Detailed responsibility rests entirely with the several authors, subject only to the Editor's general oversight; and that oversight has been exercised of set purpose with a view to the production of works which in the Editor's judgment are of value in tending to promote clear thought upon important subjects, rather than with a view to obtaining finality of statement upon matters in which a claim to finality might possibly savour of intellectual presumption.

The Editor ventures to express the hope that when its purpose is understood in this sense the series may prove of real value in a generation which from its various circumstances both needs and demands clear and serious thinking about the fundamental concerns of religion.

G. L. P.

PREFACE

THE Encyclical of the 1930 Lambeth Conference sums up the present relations between Religion and Science with unusual accuracy and penetration. "There is much in the scientific and philosophical thinking of our time," it writes, "which provides a climate more favourable to faith in God than has existed for generations. New interpretations of the cosmic process are now before us which are congruous with Christian Theism. The great scientific movement of the nineteenth century had the appearance, at least, of hostility to religion. But now, from within that movement and under its impulse, views of the universal process are being formed which point to a spiritual interpretation. We are now able, by the help of the various departmental sciences, to trace in outline a continuous process of creative development in which at every stage we can find the Divine presence and power. Thus scientific thinking and discovery seem to be giving us back the sense of reverence and awe before the sublimity of a Creator Who is not only the cause and ground of the Universe, but always and everywhere active within it."

Few of those who keep abreast of the progress of scientific and religious thought will be likely to call this summary in question. The majority of those considerations which two or three generations ago led men to think that science and religion were incompatible have lost their weight, and the whole tendency of present-day thinking is towards a scheme which needs the theistic hypothesis to give an adequate and complete account of the facts of science and life.

Now this being so, it is clear that we are faced with an anomalous state of affairs. Scientists and philosophers tell us that a satisfactory interpretation of the Universe demands belief in the existence of God ; the masses of our people place almost absolute and unquestioning faith in the pronouncements of the scientific world ; and yet, very strangely, there are rows upon rows of empty pews in many of our churches. How are we to account for this curious phenomenon ?

An easy explanation of this anomaly—and one which is not infrequently offered—would be to say that the churches do not provide that type of religion for which the Modern World is looking. But this explanation breaks down because there is little evidence that the Modern World is seriously seeking for religion anywhere else. Men and women who are whole-heartedly in search of religion nearly always seek for it within the organized Christian societies. The chief reason, rather, why the Church does not always receive the hearing which she deserves and not unnaturally expects is that she has not sufficiently adapted her apologetic to the new situation in religious and scientific thought. She has not always correctly diagnosed the disease of those who seek her succour, and consequently has not known how to apply the therapeutic weapons which in point of fact lie ready to hand. A radically changed apologetic is necessary, and the present volume is a humble attempt to contribute something towards it.

It is obvious that in order to fulfil the anticipations which the title of this volume might arouse, the author would have to be versed in three branches of the life of the spirit—in science, in theology, and in religion. How great his limitations are in all of these three subjects, he is fully aware. But it may perhaps help the reader to understand the writer's position, and also enable the author to discharge a heavy personal debt, if he here puts on record the sources from which he has learnt such as he knows and understands of these three subjects. It has been his happiness and privilege for over twelve years to be connected successively with three "places of useful and religious learning" in the University of Oxford—all of them places whose fame, for different reasons, extends far beyond the banks of the Isis. From the first of these with which he was associated, he has learnt most of his science; from the second, most of his theology; and from the third, most of his religion. None of these societies has encouraged him to take up mediating views. The author has never known what it is to live in an atmosphere which puts moderation and compromise before truth, and he hopes and believes that in the present volume, with all its defects, he will not be accused of adopting views just because they are official and safe ones. If the reader finds that in some places the author's science is too radical, or that in others that his theology is too Modernist, or that in yet others that his religion is too Catholic, he will at any rate have an explanation; and if anyone thinks it worth his while to let such criticisms reach the author's ears, he will gladly listen to them as an indication that his teachers have not been altogether unsuccessful in their efforts. Had it been customary for the writers in this series to make use of a dedication page, the author would have liked to have inscribed the names of his three spiritual homes upon it, in token of his feelings of gratitude and affection towards them.

Finally, he would wish to express here his thanks to several members of S. Stephen's House, Oxford—particularly to Messrs. A. G. C. Langford and A. D. White—for assistance in correcting the proof-sheets.

F. LESLIE CROSS.

OXFORD,
September, 1930.

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CHAPTER I

THE REIGN OF SCIENCE

WE are living in an age of science. Even the least reflective of men cannot for long be oblivious of the fact. The last century or so has witnessed a a prodigious development in the field of theoretical science, and of its practical applications. Steam engines, railways, telegraphs, telephones, airplanes, dreadnoughts, motor-cars, wireless, and countless other objects of a similar character which we meet with every day impress deeply upon us that we are living in an age when science, if it does not reign supreme, at least occupies a position of great importance. So deeply has the belief in science as a dominating factor entered into our souls that we should feel in quite another world if the inventions of science were removed from us.

But the conditions to which we have become accustomed have not always existed. Our ancestors of a few generations ago knew nothing of the age of science as we know it. And if we wish to understand the character of our present age it is necessary to consider first how it came into being; and secondly what are its characteristics.

When did the Modern World come into being? This is a question the answer to which is of supreme importance and yet one where it is very easy to go astray. There has grown up among Protestants the conviction that the Modern World began in 1517, when Luther pinned up his ninety-five theses against indulgences on the church door at Wittenberg. Until that date, almost all Europe was bound in the fetters of ignorance and darkness. With the outbreak of the Reformation, all this suddenly changed, at least in those countries where the Reformation Movement succeeded. Luther effected the emancipation of nearly half of Europe from the fetters of Catholicism—from Monasticism, from Indulgences, from Works of Supererogation, from Scholastic Theology. A new age of light and reason and freedom suddenly emerged. This is the theory with which we have become familiarized by our school text-books. Unfortunately, if we attempt to understand the Modern World with it in our minds, we shall have little hope of success ; for candid students, both of the Middle Ages and of the Reformation epoch, realize now that it is profoundly untrue. In the first place, it is unfair to the Middle Ages. Of course the Christain community of that epoch was not perfect. There were abuses and scandals and frauds—as there have been in every age. Anyone who like Dr. Coulton has made an intensive study of its literature can cull without much difficulty plenty of quotations from its writers which give support to such a conception of it. But against these sordid elements has to be set much of a very different character. The thirteenth and fourteenth centuries were periods when speculation reached a profundity and exactitude which had not been equalled since the time of Plato and Aristotle. The Gothic cathedrals and churches of the centuries immediately preceding the Reformation are among the glories of the world. It was in the much-maligned fifteenth century that modern painting made such enormous advances. From the time of the Crusades onwards, trade gradually developed, and the existence of such commercial activity is incompatible with the belief that these ages were mainly dark and debauched. It has been claimed that a good test of the state of civilization of a community is its soap-consumption. But it should be remembered that there is an even higher standard of judgement than cleanliness. That is, godliness. And judged by this standard, the Middle Ages will bear comparison with any of the centuries which succeeded them.

Still more important is it to note the real nature of the change effected by the Reformation. It is very doubtful if Luther's emancipation of his supporters was as complete as many of those who wave the Reformation flag have supposed. As the length of time between us and the Reformation increases, it becomes ever clearer that the great break in the history of European thought occurred not in the sixteenth but in the eighteenth century. Compared with the rift in this latter century, the cleft of the sixteenth is comparatively unimportant. Troeltsch points out—it is true that he is thinking *primarily* of Continental thought—that the ideas of the sixteenth and seventeenth centuries were largely those of the medieval period. The important characteristic which these centuries shared with the preceding age was that its conceptions were based, at least in theory and ideal, on a fundamentally religious basis. In some cases the ideals themselves were wrongly conceived, and in many cases there was a wide divergence between practice and ideal; but in general, when men reflected on their actions and motives, they fully believed that the only true principles for them were to be found in the Christian religion. Economic theory, for example, looked always to religion for its principles. The Christian religion was so integral a part of the constitution of society that society expected its rulers to defend it. It hardly crossed men's minds that they might not be rightly compelled to attend the services of the National Church; if they offered any objections to attending them it was usually not because they, like the moderns, believe that God can be equally well worshipped in the open air—which means, of course, that religion is unnecessary—but because they thought that the particular form of worship provided by the National Church was less Scriptural and less Christian than what they found in the conventicles or elsewhere.

In the eighteenth century, a radical change gradually came over European thought. The conception gradually grew up that it was possible to interpret life on idealistic lines without having recourse to Christian principles. Systems of ethics were constructed and believed workable, in which God and religion had no place. That century—termed by Mark Pattison the *sæculum rationalisticum*[1]—claimed to have discovered that religion was only the work of priestcraft, which invented the ideas of God and the devil and eternal punishment in order to justify its own existence and to squeeze out money from the people, whether by the cruder method of indulgences or by the more refined method of Church collections. It was now possible to have a theory of conduct which needed no religious sanctions. Social reform and social progress did not need a supra-mundane justification. Charitable actions ceased to be the means of securing a certain amount of merit which should enable the possessor to enter heaven. The tendency was for religion to cease to be the dominating principle of life, and to become a departmental activity. The scientists felt themselves less and less bound to shew the theological implications of their teachings. Laplace's reply to Napoleon was typical. Napoleon asked the famous physicist why the concept of God did not occur in the *Méchanique céleste.* "Sir," was the answer, "I had no need of any such hypothesis."

To distinguish the new system of ethics which thus arose, the phrase "this-worldly," as opposed to "other-worldly," has been coined. The general tendency for the last two centuries has been the gradual substitution of a this-worldly for an other-worldly ethics. The result of this has been a gradually increasing cleavage between religion and culture, between religion and politics, between religion and life. The social reformer of to-day seldom invokes the name of God as a justification for his schemes. At most he tends to look patronizingly upon religion, and thinks that for certain classes of people a little religion may be quite a useful adjunct. It may, in Lord Chesterfield's words, serve as "a collateral security for morality."[2] On the whole, religion and culture, religion and politics, religion and science now stand opposed to each other. And, though the conservative instincts in man have kept the greater part of Europe still Christian in name, for quite 80 per cent of present-day Europe, Christianity means little more than just the name. There has been an appalling decline in regular worship; belief in a future life is for the vast masses of people rather a superstition than a creed; and any attempt on the part of the Church to interfere with the new ideals of sex-morality is looked upon as an unwelcome intrusion. "This is the first age, I think," writes Mr. Lippman, "in the history of mankind when the circumstances of life have conspired with the intellectual habits of the time to render any fixed and authoritative belief incredible to large masses of men. . . . The irreligion of the Modern World is radical to a degree for which there is, I think, no counterpart."[1]

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[1] *Essays and Reviews*, p. 259.

[2] Quoted C. G. Challenger, *The Excellence of Revealed Religion*, p. 47 n.

An illuminating example of this change in the attitude to religion is to be seen by comparing the writings of ecclesiastical historians of the eighteenth century with those of to-day. Gibbon's position in history was at the parting of the ways. He himself shared in the irreligion of the Modern World. But he lived in a world which fully believed in the disposition of history by Divine Providence. Consequently when, in his famous chapter on the progress of the Christian religion, he was led to enquire into the reasons for its growth, he naturally expects his readers to believe that its primary cause was the guidance of God. "It was owing," he wrote, "to the convincing evidence of the doctrine itself, and to the ruling providence of its great Author" that the Christian religion made such rapid strides. "But as truth and reason," he continues, "seldom find so favourable a reception in the world, and as the wisdom of Providence frequently condescends to use the passions of the human heart, and the general circumstances of mankind, as instruments to execute its purpose, we may still be permitted, though with becoming submission, to ask, not indeed what were the first, but what were the secondary causes of the rapid growth of the Christian Church ? "[1] And then Gibbon goes on to enumerate and develop the famous five " secondary causes " of the progress of Christianity. There is probably a strain of satire running through the passage quoted. But there is no doubt that what Gibbon here states is what his contemporaries still believed. And when you turn to the more orthodox Church histories of the time, the intervention of Providence is expected, and discovered, at every turn. But the nineteenth century witnessed the gradual disappearance of this mode of writing ecclesiastical history. The belief that the course of Church history, like that of secular history, is explicable without appeal to supernatural causes gradually gained ground. Traces of the older attitude survive in such a book as Dr. William Bright's *Age of the Fathers ;* but even here the attitude is very different from what it was in the older histories. Under the majority of present-day Church histories there lies the presupposition that ecclesiastical history is governed by the same laws and principles as that of any other department of history. A twentieth-century history which invokes any other principles than those which Gibbon describes as " secondary causes " is almost certain to be dubbed by the academic theologians as " edificatory ", and dismissed accordingly.

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[1] W. Lippman, *A Preface to Morals*, p. 12.

If this brief account of the nature of the modern world is correct, then it is clear that the form in which the problem of the relation between religion and science presents itself to us is very different from the form which it took a few centuries ago. Our whole attitude to religion and to science has undergone a fundamental change. We shall never understand the scientific problem unless we put ourselves at the modern scientist's point of view. Those who oppose religion now are no longer *imaginary* opponents who, like the fool defended by Gaunilo, say in their hearts that there is no God. They are often men of robust intellect and men living a high standard of moral life. And intellectually they have certainly possessed some of the best brains of modern times.

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[1] *The Decline and Fall of the Roman Empire,* Chap. xv (Everyman's edition I, p. 431.)

We have so far been considering, in our attempt to understand the Modern World, those characteristics which it possesses as a common whole since its origination in the eighteenth century. Taken together, they bring it into sharp contrast with the ideals of pre-eighteenth-century Europe. A few words must be said before passing on, on the *differences* between the character of the modern world at the outset and its character to-day.

The eighteenth century was pre-eminently the *sæculum rationalisticum.* It had abounding confidence in what it believed that reason could achieve. Reason was a stupendous endowment of man, which conferred upon him enormous dignity, and enabled him to look with disdain upon the brute creatures in whom it was absent. It was man's highest possession, and it was impossible to conceive of any more noble human activity than the exercise of it. "The image of God in which man was at first created," wrote Warburton, "lay in the faculty of reason only."[1] But men assumed that in spite of its pre-eminence, reason was a surprisingly easy tool to manipulate. It could be applied to any subject, no matter how profound, and it would give a ready solution of all its difficulties. The universe presented itself as a Greek temple, it was composed of simple lines and regular curves, and reason could without difficulty apprehend it. And the theologians believed that the highest object on which the highest faculty of man could be turned was God. The supreme activity of the spirit was to prove the existence of God. "Christianity appeared made for nothing else but to be 'proved'; what use to make of it when it was proved was not thought much about."[1]

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[1] Quoted, *Essays and Reviews*, p. 269.

This rationalistic interpretation of the Universe has now ceased. Mark Pattison believed that it extended beyond the eighteenth century down to the publication of the *Tracts for the Times.* Most people would agree that this is its extremist limit ; so late a date forgets the importance of the Romantic poets as expressive of the spirit of their age. The precise date when the epoch closed, however, is not of great importance, and probably cannot be exactly fixed. What is important is to realize that the age of rationalism in the sense in which the eighteenth century was rationalistic has passed, and given place to a different outlook.

Probably there is no more hazardous proceeding than to attempt to understand one's own age. One is too near it to understand it. It is like attempting to appreciate a cathedral surrounded by narrow streets which prevent the possibility of a " synoptic " view of it. Nevertheless, since the character in which we conceive our age has such an enormous bearing upon the subject in hand, we cannot refrain from venturing a few remarks on the subject.

What seems to be the most outstanding mark of the present age is its *scepticism.* There is a belief very widespread to-day that ultimate truth is unattainable. Originally it was a creed of the intellectuals which took hold of European thought about the middle of the last century as a reaction against the dominant Hegelianism. Hegel had overwhelming confidence in the powers of reason and system. He believed that he possessed a method which enabled him to explain and even predict the whole course of nature. It was not the simple reason of the eighteenth century, but a more profound reason—a reason which was based (as the student of Hegel will know) not on the logic of contradiction but on the principles of the dialectic method. It was not to be embarrassed if it came into conflict with the facts of science. Hegel said that if the facts of science did not fit his theory, then it was so much the worse for the facts.

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[1] *Essays and Reviews*, pp. 295 f.

At Hegel's death in 1832, his system reigned supreme in Germany. Philosophy and Hegelianism became practically synonymous terms. But a reaction was bound to set in before long as science advanced, and new facts were being discovered for which the Hegelian system allowed no place. Hegelianism was found wanting; and, because Hegelianism and philosophy had become identified, the abandonment of faith in Hegelianism meant the abandonment of faith in philosophy. In its place there grew up the belief that the only sure knowledge was to be found in the restricted field of natural science. Herbert Spencer held that the answers to such problems as the existence of God and immortality were unknowable, and the word "Agnosticism" was coined to express the proper attitude of the scientist towards questions about the existence and character of Ultimate Reality.

This attitude to the problems of life was originally an academic movement. But within the last half-century it has penetrated far beyond academic circles, and has influenced millions who have never even heard of Hegel and Spencer. By many the belief that there is any other kind of knowledge than scientific knowledge is now hardly thought worthy of discussion. The conflict between science and religion which raged so furiously in the middle of the last century has lulled, not because there has been a decisive victory for one of the combatants, but because it has ceased to arouse interest. Serious attempts to solve questions of Ultimate Reality are decidedly at a discount. The word "philosophy" has become anathema to the popular, and even to the scientific mind. A recent writer producing a popular monograph was requested by his publishers to avoid at all costs the use of the word "philosophy"—otherwise the volume would not sell. Though it would be untrue to say that there is no interest in the popular mind in religious questions, there is undoubtedly a widespread conviction that absolute truth in such matters is unattainable. The daily Press will sometimes publish a series of articles by eminent writers on such a subject as " life after death." But such contributions are regarded and read mainly as the somewhat eccentric views of particular people, and the very method in which they are published, when you will find six conflicting opinions in the six issues of the week, with no attempt at reconciliation, suggests the fact that no truth is attainable.

This scepticism has had a serious disintegrating effect on culture in general. The need for a " synoptic vision " is a thing of the past, for it is no longer conceived to be possible. It is the duty of each investigator to apply himself intensively to his own piece of research and to avoid diverting his energies into the study of the relation of his department with the whole field of learning. This has led certainly to colossal achievements in the spheres of science, history, and so on. The astronomers have enormously increased the range of their observations, the inorganic chemists have determined the atomic weights of the elements with a degree of accuracy previously unknown, and the organic chemists have synthesized compounds of highly complex structure. And the historians and philologists have thought no subject too trivial for research. Monographs on the obscurest subjects are produced every year by the thousand. Oxford, it has been said—and what holds here of Oxford is probably still more true of other Universities—is becoming a place where people know more and more about less and less. The academic world is now a world of specialists.

Here again the academic outlook is reflected in the wider world. The present age has an insatiable desire for large numbers of unrelated facts. Its mind is essentially cinematographic. It delights in masses of unco-ordinated knowledge ; and is never happier than when discovering the name of a greyish-brown American nocturnal carnivore of six letters of which the second is *a* and the sixth *n*. The successful author or journalist is the man who can artfully flatter his readers on the extent of their empirical knowledge. And the tourist industry is built up on the knowledge of this omnivorous desire for unco-ordinated data in the modern mind.

One further factor in the present world-outlook is its essentially critical character. Criticism and scepticism ordinarily go hand in hand. But in the case of the present day, criticism has been largely fostered by a sense of disillusionment. The Victorian Age was an age which believed in progress. The belief that things were always tending to something higher and that if they were left to themselves they were bound to improve was the philosophy which underlay the then current liberalism. But such remnants of this creed as survived the turn of the century were finally crushed by the World War. There was seen to be no such inevitable law of upward development. And the consequent disillusionment which has followed has only increased our critical temper. Our criticism may not always be very searching; only too often it is singularly superficial. But when anything is presented to the modern mind for its acceptance its first reaction is normally one of distrust. This temper, again, has led to great advances in the field of science and history, and, to a certain extent, in philosophy. But it can hardly be the sort of attitude which naturally leads to religious faith.

Such, it seems to us, is a rough picture of the present age of science. Its whole temper differs widely from that of its predecessors. And consequently the form in which religion will present itself, and the means by which it will be best defended in this age, are different from what they have been in the past. The old arguments for the existence of a Supreme Being have lost their force, largely because we no longer have that confidence in the faculty of discursive reasoning which our forefathers had. Even orthodox

Roman Catholic apologists, who hold tenaciously to the validity of the old arguments, are ready to admit that they are of more value for strengthening the faith of the believer than for converting the sceptic. The Christian believes that the core, the essence, of his Faith is an unchanging body of Principles of Truth and Life which transcends all the changes and novelties of this transitory life. But he cannot escape from the fact that the mode in which that Faith is apprehended must differ as the categories used by succeeding ages also change.

One of the outstanding marks of the present age we saw to be its critical character. Nothing is free from the fire of criticism. Now this surely creates difficulties of a fundamental character. For has not religion always claimed that its dogmas are absolute and beyond criticism ? Have they not behind them the weight of a superhuman authority which guarantees their absolute truth and demands their unquestioning acceptance ? The Roman Catholic view of dogma is that when promulgated it is to be believed without questioning. Any criticism of it is anathema. The Reformers—or at any rate, their successors—held similar views about the authority of the Bible ; unquestioning assent had to be given to every assertion in the Bible. The early Tractarians, again, attached a like importance to the definitions of the primitive Church. To all these, truth was to be accepted primarily, not because it answered the questionings of the human spirit, but because it was the Revelation of God. To accept a dogma merely because it approved itself to our judgement betrayed an absence of faith. " He who rejects any one revealed truth," wrote Dr. Pusey, " does not hold whatever other truth he does not part with, out of submission to the authority of God Who has revealed it, but because it approves itself in some way to his own natural mind and judgement. What he holds, he holds of himself, according it to be truth, not as Faith."[1]

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[1] *Life*, Vol. IV, p. 8.

Now if this were the only way in which Christianity could present itself to the Modern World, it would have little chance of recovering its hold upon the age of science. Of an infallible authority beyond the sphere of reason, modern science knows nothing. It is, of course, true that there is a sense in which science uses the word "authority," and authoritarians in religion occasionally like to invoke this fact as indicating that even in the field of science authority plays a part. It is pointed out that it is only on authority that I know that there is such a place as Timbuctoo, and that it is only on authority that I accept the accuracy of Einstein's experimental observations at the solar eclipses. But the authority on which I assent to these beliefs is very far different from that on which many of the older apologists asked their adherents to accept religious beliefs. In the former case I believe that it is, theoretically, possible for me to verify the assertions in question. I know that I could go to Timbuctoo, and verify the assertion. I believe that I could have gone to Sobral or Principe and witnessed the eclipses which confirmed the relativity theory. But on the old theory it was of the essence of religious beliefs which were accepted on authority that they were outside the sphere of verification. They were to be accepted not because "they approved themselves to our natural mind and judgement," but because they were guaranteed by an authority with reference to which reason had no function.

Such a conception of authority, that is of an authority which transcends the approval of our natural mind and judgement, must be abandoned. It developed with the stereotyping of Christian dogma which began in the latter part of the second century and increased progressively throughout the Middle Ages. The assistance given by the civil power to "orthodoxy" in the fourth and fifth centuries did much to foster the change. Dogmas were no longer propositions believed in primarily because of their intrinsic truth. They became instead a means of discipline which demanded submission because of the august character of the authority which imposed them.[1] But such claims on the part of dogma could be made only so long as people were prepared to accept dogma, or at least the bases of them (e.g., Scripture), unquestioned. When once these ultimate bases of the Christian faith have been questioned, the only appeal which religious or any other kind of truth can make to the mind of man is its adequacy to the demands of his experience.[2] The man desiring to live the religious life, to find God and to act in accordance with the principles of religion, discovers that he is confronted with a vast number of prophets, all of whom profess to be able to offer him what he wants. Each claims that his own solution is the correct and Divinely appointed one. Now how can the man possibly decide between these conflicting prophets and their respective messages, except on the grounds of their adequacy to experience? What other means is there of deciding between Fundamentalism and Higher Criticism? Between the Pope and General Councils? Between the Church and the Bible? Between Traditionalism and Modernism? Between Christianity and unbelief? In every case, the seeker is thrown back ultimately on the witness of his own experiences.

It is clear, then, that the appeal to any authority rests ultimately on an act of private judgement, and that the antithesis in which "private judgement" and "authority" are sometimes set, as if certain forms of religion can dispense with the former, is misleading. The correct antithesis is not that between "private judgement" and "authority", but between "private judgement" and "corporate judgement", and the real issue between Protestant individualism and the Catholic conception of a corporate Church is whether or not the Christian community is able to make judgements apart from its individual members. And this raises the further question whether or not the Christian community has any *existence* apart from that of its members.

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[1] Cp. Harnack, *History of Dogma*, E.T., Vol. III, pp. 191 ff.

[2] "Experience", rather than "reason", is purposely used here, so as not to foreclose the question as to the rational or non-rational character of religious truth. "Experience" is here understood in its widest sense as any self-evident datum of consciousness.

All that we can do here is to state that we believe that it has; and that we believe that this view is in accordance with the best thought of the present day. We do constantly think and speak as if corporate bodies had some sort of existence apart from their members. We talk quite naturally of the present policy of Germany, or of the ideals of the Greek city state, or of the theology of Scholasticism, or of the evils of Modernism; and by these phrases we do not mean to refer primarily to the individuals which constitute them. Of course, there are Nominalists who quarrel seriously with this contention. They tell us that Germany is nothing but the totality of the German subjects; that the Greek city state is the totality of its inhabitants; that Scholasticism is the totality of its professors; that Modernism is the totality of its exponents—and accuse us of attaching a Platonic reality to universals. The only reply we can make to such accusations is what we have already said, that we all do talk quite naturally about such collective units. We *mean* them as subjects of predicates. If I say that I believe that the present economic policy of Germany is successful, my *meaning* is that Germany is an entity which can have an economic policy, that at present it has one, and that I judge it to be successful. And how it is possible to regress behind *meaning*, the present writer, at least, cannot conceive.[1]

Similarly, there would seem to be a corresponding existence attaching to the Church above and beyond that of its members. The Christian community is not merely the sum total of all those who from Peter and John onwards down through the ages to the last baptized child have professed the Christian name. It is something more than these, more than its members; and it exists apart from them. And if, as it is here contended, the Church exists as a corporate body, then there is no reason why it should not make corporate judgements.

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[1] Cp. ch. vi.

Such corporate judgements are in point of fact made; they find expression in the ideals of life and conduct and worship and dogma of the Church. Even those who have little connexion or sympathy with Christianity talk of "the Christian ideal"—meaning by the phrase not normally (though sometimes) the ideal laid down by Christ, but the ideal of life set forth by the Christian community. The Church, no less than the individual, has the power of making judgements. The judgements of the individual are "private judgements." Those of the Church are "corporate judgements."

The corporate judgements which the Church has made have crystallized in various forms. There has been the acceptance of a number of sacred writings as embodying the essence of Christian teaching; there have been the decrees of Councils, both local (i.e. most councils of a section of the Church) and general (i.e. those whose decisions have been accepted by the whole Church); there have been a large number of creeds, some of which have had very widespread acceptance. When so crystallized these corporate judgements have been termed "dogmas."[1]

But how far any such dogmas can claim to be irreformable is another matter. Private judgements may be either true or false; and there is no reason to believe that corporate judgements will not be also fallible.[2] S. Paul was usually right; but he was occasionally wrong, as when he believed that he would be among those who would be "caught up to meet the Lord in the air." And the Church too has sometimes made false pronouncements. The attempt has long been made to discover some organ in the Church whose judgements shall be infallible, some organ which is capable of speaking with oracular authority. We have already indicated some of the authorities which have been supposed to possess this power. Some theologians have held the writers of the Sacred Canon, other the church of antiquity, others the General Councils, or a selection of them, others the Pope, to have been infallible. But to all of these as absolute authorities there are serious objections. There is little either in the teaching of Our Lord or in the nature of the Christian religion to lead us to suppose that any of these authorities pronounces invariably with absolute infallibility; and most of them fail to justify at the bar of history the claims which either they themselves have made or others have made for them. It is becoming increasingly realized that the corporate judgement of the Church has no means of pronouncing dogmas which are absolute and irreformable. Its considered opinions deserve the highest respect on the part of the faithful. But nowhere can we discover pronouncements which are completely beyond the sphere of criticism.

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[1] Originally the word "dogma" appears to have meant any proposition that seemed true (from δοκέω); this seems to be its use in Plato.

[2] On the inverse ratio which coexists between authority and the claim to infallibility, see especially E. Milner-White and W. L. Knox, *One God and Father of All* (Oxford, 1929).

CHAPTER II

RELIGION AND PHYSICS

PHYSICS, like most other sciences, was closely connected with theology in the Middle Ages. Unless he happens previously to have made a study of Medieval Cosmology, the student of Dante soon discovers this to his discomfiture. The Medieval World possessed a considerable body of astronomical data which had been inherited in the main from Antiquity, though these data had been supplemented by the zealous Arab scholars who flourished from the rise of Islam in the eighth century onwards. And these data were interpreted by an elaborate theory of the heavens. The world itself was a flat disc, whose centre—as those who have studied the famous fourteenth-century map of Richard of Haldingham in Hereford Cathedral will remember—was Jerusalem. Around this world, the stars revolved in a series of spheres. There was little attempt at experiment; in this connexion the Medieval Scholastics were far behind the Arabians who, for example in the field of chemistry, had made several important experimental discoveries. And in the matter of explanation, they seldom attempted to investigate events from the standpoint of causation as the modern scientist understands it. The atomic theory seems generally to have been dismissed as untenable on the *a priori* ground that history had shown that those who defended a doctrine of this character were atheists.

It was at the Renaissance that the first blow came to the satisfying cosmology which the world had accepted for several centuries. The three names of most importance in this connexion are Copernicus (1473–1543), Bruno (1548–1600), and Galileo (1564–1642).

Copernicus is famous for having been the first to put on a scientific basis the idea that the sun, and not the earth, was at the centre of the Universe. A Pole by birth, he travelled to Italy, and there became fired with a passion for mathematics from the Renaissance scholars. He recognized that the motions of the stars and planets would be simplified to an extraordinary degree if the sun were conceived as the centre around which the planets, of which the earth was one, revolved; and he accordingly adopted that belief. The theory was a bold one; but it was a bold age, and the Church saw no reason to reject it. When Copernicus published a short abstract of the theory, and submitted it to the Pope for his approval, Clement VII even encouraged him to publish his speculations in full.

It is not surprising that so novel and astounding a theory encountered some opposition. But it is interesting to note that, to begin with, this opposition came mainly from the scientists and common sense, and not from the Church. Thus the scientists asked how the fact that a stone when thrown up into the air came down to earth again at the same place was to be explained if the earth were rotating about its axis; and common sense could then, as now, find plenty of objections. But the Church remained on the whole quite ready to let Copernicus have a hearing.

Unfortunately for the success of the theory it was adopted by Bruno. Now Bruno, unlike Copernicus, was primarily not a mathematician, but a philosopher. And the philosophy which he expounded was definitely pantheistic in character, and as such it was evidently incompatible with Catholic theology. Bruno revived the ancient theory that the Universe had no limits, that it had infinite extension in space; and Copernicus's theory gave Bruno just the support he needed in order to maintain the vastness of the universe. But, even in his astronomical theories, he went far beyond Copernicus. Copernicus had held that the stars were all at a fixed distance from the sun. "First and above all," he wrote, "lies the sphere of the fixed stars, containing itself and all things, for that very reason immovable."[1] Bruno held that the stars were at varying distances, and might be scattered throughout the infinity of space.

Bruno was condemned as a heretic and reformer, and burnt at the stake in 1600, and before long, the theory of Copernicus received official condemnation. But in the meantime it had been adopted by another student who was to prove even more famous in the history of science. This student was Galileo Galilei.

Galileo's earliest work was not of an astronomical character. It was concerned with the problem of gravitation. As a result of the study of the swinging of a sanctuary lamp in Pisa Cathedral, Galileo was led to investigate the law of gravitation. Galileo challenged the view of the inherited physics that the rate at which a body falls to the earth depended on its weight, and conclusively showed its falsity to the assembled professors of Pisa by allowing a number of objects of different weights to fall to the ground from the top of the Leaning Tower of Pisa. Nature's refutation of the traditional mechanics created a prejudice against him in the minds of the orthodox. But an invention was to be the immediate cause of the trouble. Galileo discovered how to construct a telescope, and by its means he found out one of the strongest arguments in favour of the Copernican theory. The planet Jupiter was shown to have satellites or "moons"—a fact which indicated clearly its similarity to the earth and strongly confirmed Copernicus's explanation of the planetary system.

Here was a real challenge to the Church. Popular preachers could ridicule the theory with all the old arguments derived from common sense. To the case of Galileo and his telescope there was even definite Scriptural reference.

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[1] *De Revolutionibus Orbium Celestium*, I, x. Quoted *in extenso*, W. C. D. Dampier-Whetham, *History of Science*, p. 121.

"Ye men of Galilee, why stand ye gazing up into heaven?" And the Church in the meantime came down definitely on the anti-Copernican side. Galileo, in December, 1615, appealed to the authorities at Rome in person. But the Church soon convinced Galileo that it had no two minds on the question.

Scriptural arguments were soon collected to render the whole Copernican theory anathema. Joshua's words "Sun, stand thou still" (Josh. x, 12) lose their meaning on the heliocentric theory. Solomon, "*écrivain inspiré et savant de premier ordre*,"[1] wrote in Ecclesiastes (i, 5): "The sun also ariseth and the sun goeth down, and hasteth to his place where he arose." Consequently in 1633 (in practically a repetition of a decree of 1616) it was laid down: "that the sun is the centre of the universe and not moved by motion in space is a proposition which is absurd and untrue in philosophy, and also formally heretical since it is expressly opposed to Holy Scripture."[2]

Galileo, it is true, recanted under the threat of persecution, though the well-known addition—*e pur si muove*—indicates the extent of his submission. But he had started physics on the experimental road, along which it was henceforward to develop. From now onwards, the conflict raised by the Inquisition was to lead physics and religion along separate paths, and the divergence between them was to increase, until in the nineteenth century it seemed absolute. Only within the last decades have there arisen some signs that physics cannot stand solely on its own feet.

It will be noticed that there were two main objections to Galileo. First that his theory was incompatible with Scripture. What meaning could be given to God's making the sun stand still for Joshua on the heliocentric theory? Our consideration of the conflict between science and religion on this score must be segregated to a separate chapter.

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[1] So Bellarmine, quoted D.T.C., s.v. Galilée, col. 1063.

[2] Quoted, *ibid.*, 1076—"che il sole sia centro del mondo ed immobile di moto locale e proposizione assurda e falsa in filosofia, e formalmente eretica per essere expressamente contraria alla Sacra Scrittura."

But there was another objection to Galileo, namely, that his theory was indefensible on the basis of the current philosophy of religion. It was realized that quite apart from any question of Biblical inspiration, the new physics created problems of great importance for theology. The tidy and symmetrical medieval cosmology had been overthrown. As we shall see, the new cosmology led men to discover an increase in the range of causal determination, but a decrease in that of final determination. For the medieval cosmos, particularly after the Aristotelian movement in the thirteenth century, was essentially a teleologically determined cosmos; and with the seventeenth century there grew up a fierce polemic against "final causes."

What is more, the new theory left no place for a local heaven or hell. The ideas that heaven was above the sky and hell beneath the soil were universally believed in the Middle Ages. The Ascension of Our Lord's Body was supposed to guarantee the one, and the existence of volcanoes—a useful weapon to terrify any sceptics—the other. It is true that the medieval writers were careful to explain that it was profitless for the ungodly, who held to a spatial hell, to put their trust in the limitations which such a conception would seem to imply and to rely on the hope of finding a "full house". S. Thomas reminds his readers that Proverbs xxx, names hell as one of the three or four *insaturabilia*;[1] and in this connexion he expresses his opinion that God has ordained that the space of hell should have special laws to avoid the contingency of overcrowding.[2] The belief that heaven and hell were spatially located was held in the Middle Ages with the same sort of conviction that we believe to-day that infection is carried by microbes. The new physics shook some of the fundamental philosophical conceptions of past generations.

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[1] *Comm. on the Sentences*, 4.d.44.q.3. art. 2.q.3.o.

[2] *Ibid.* 'Nec est inconveniens quod intra viscera terrae tanta concavitas conservetur divina virtute, quæ damnatorum omnium corpora possit capere.' If S. Thomas had lived in our age, he would probably have invoked the non-Euclidean geometries to help him to answer this problem.

The emancipation of physics from the more ultimate questions about the nature of the universe, however, was only gradual. Until the beginning of the nineteenth century, physics and metaphysics were still interconnected. When Descartes is discussing the laws of refraction of light, he introduces metaphysical questions about the structure of matter. In Newton and in Leibniz physics and mathematics and philosophy are constantly rubbing shoulders together. A very interesting instance is the correspondence between Leibniz and Samuel Clarke,[1] where each writer defends his theory of the nature of space on the grounds that it is more in harmony with the Divine purpose. Even in Kant's earlier writings, this same belief in the intimate connexion of physics and metaphysics can be observed.

By the nineteenth century physics had become practically emancipated from philosophy. There remained, however, one point of connexion, and this presented a problem which was really acute. The advance of physics seemed to show that everything in the universe was determined by *natural* law; and this belief had such far-reaching effects and is still so serious a factor to be reckoned with that we must treat of it at some length here.

It had, of course, long been realized that many events were predictable. The dates of eclipses could be calculated years before they occurred, and observation always verified the justice of the predictions. But the nineteenth century, with its rapid advances in all the physical sciences, impressed upon men's minds the reign of law everywhere. The earlier years of the century may almost be said to have laid the foundations of the modern sciences of heat, electricity, light; and Lavoisier's experiments and Dalton's atomic theory, and several other observations and hypotheses of the time put chemistry on a similar footing. Still more impressive was the law of the conservation of energy—the First Law of Thermodynamics—which was put on an experimental basis about the middle of the century. This law showed the equivalence of heat and work. It was the final proof that the laws of physics were rooted in mathematics and mechanics. The whole universe looked as if it were ruled by inviolable laws.

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[1] Samuel Clarke was a staunch defender of the Newtonian physics.

This " reign of law " was believed to go even deeper than the world of external nature. It ruled the mental as well as the material world. Medicine was beginning to advance again. And the study of mental and brain processes seemed to indicate that the former were conditioned by the latter. The structure of the brain clearly had a considerable effect on the nature of our mental life, as could easily be shown if parts of the brain were removed. What reasons are there, then, for refusing to believe that this determination of the one by the other is complete ? In fact, chemistry and physics and physiology supported by the evolutionary theory, seemed to show that mind was only a by-product of matter. The German Vogt expressed the situation vividly, if crudely, by the epigrammatic assertion that " the brain secretes thought as the liver secretes the bile." Thought was believed, therefore, to be materially determined, and the grandest conceptions in art and philosophy and religion were regarded as the inevitable result of relentless laws of nature.

It is obvious that such a universal reign of law, if true, raises difficulties of a most serious, if not fatal, character to the Christian theologian. For the purposes of discussion we may classify these difficulties under three heads. These are :—

(i) *Miracles.* The Christian revelation seems built up on miracles. The Old Testament records God's working among the Hebrews as constantly manifested by the agency of miracles. In the Gospels, the life of Our Lord is " miraculous " at every turn. He was born miraculously. He rose from the dead miraculously. He constantly effected miraculous cures. And this miraculous character in the life and circumstances of the Founder continued in the Christian Church. The Apostles were constantly helped, when their faith or their missionary work demanded it, by the presence of miraculous assistances. And after the Apostolic Age, unless we are to assume the greatest credulity or falsification on the part of the saints, it seems that God was often ready miraculously to intervene. How can these facts be reconciled with a conception of the world determined by a universal reign of law ?

(ii) *Intercessory Prayer.* The belief in the rightness and value of prayer is one of the most fundamental of Christian beliefs. " Ask, and it shall be given unto you ; seek, and ye shall find ; knock, and it shall be opened unto you. For every one that asketh receiveth, and he that seeketh findeth ; and to him that knocketh it shall be opened." It is on the basis of this and similar sayings of Our Lord that the practice of intercessory prayer has been built up. But if the Universe is governed by mechanical laws, is not prayer useless ? Does it not almost fall under the condemnation of the vain repetitions of the heathen who think that they shall be heard for their much speaking ? Will not the night, the rain, the earthquake come just the same whether or not we pray against them ?

(iii) *The problem of free-will.* Here the contradiction between the reign of law and the demands of Christian theology seems absolute. For it is possible to conceive of a Christian who would go so far as to abandon his belief in the intervention of the Godhead through miracles, or even in response to his intercessory prayers ; it is conceivable, that is, that Christians should exist who are prepared to admit determinism without. But can a Christian possibly admit determinism within, determinism with respect to his own actions ? For if a man denies the possibility of freedom, then he must deny that he has the capacity to choose between good and evil ; and if he denies this, it seems that the whole Christian position is undermined. Man is degraded to the level of a machine. Such a position seems quite irreconcilable with Christianity.[1]

We have stated here as strongly as possible the ways in which, on three different scores, the leading presupposition of modern physics, the reign of universal law, seems to come into fundamental conflict with Christian thought. To the second of these, we feel that we have little specifically to contribute, and in view of its being to some extent included under the third heading, it will be passed over. But something must be said in turn about (i) and (iii).

As regards miracles, one line has been to deny that miracles take place at all. This was the view of Mr. J. M. Thompson in his *Miracles in the New Testament.* Now we do not propose to deny that a man may reject miracles and still be a Christian. Facts are evidently against any such contention. There are a number of sincere Christians who do deny altogether the existence of miracles. They urge that a miracle is such an exceptional event, and that there is such overwhelming evidence that the reign of law is universal, that only the strongest counter-evidence would allow them to believe that these laws are ever broken. They point out that most of the records of alleged miracles come from people who have had no scientific training; who were psychologically such as expected miracles; and that the testimony alleged is usually quite easily susceptible of another interpretation.

To these assertions, we feel bound to reply that *ex hypothesi* a miracle is a rare occurrence; it is something highly exceptional; and, in so far as it has evidential value, it depends on its exceptional character. "A miracle," said the Archbishop of Rheims in Bernard Shaw's *S. Joan*, "is an event which creates faith. That is the purpose and nature of miracles" (p. 23). And if they are to create faith they must be events of a quite exceptional character. Our Lord's miracles created faith in the disciples just because "no other man did such signs as this man doeth." If other men, too, did such signs, there would not have been that mark to distinguish Him from them; in that case they would have lost their evidential purpose.

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[1] I am aware that Rashdall thought such a doctrine not irreconcilable with Christianity and in fact held it himself; and though one hesitates to differ so fundamentally from so profound a student of the problems of Christian philosophy, I can only say that the case which he formulates in his *Theory of Good and Evil* (Bk. III, Ch. 3)—which every student of the problem may be advised to read carefully—fails, to the present writer at least, to carry conviction.

But, further, all those who have studied seriously the problem of miracles recognize that from their very nature, miracles could not as such be the subject of physical science. For S. Thomas, a miracle was an event whose cause lay outside the sphere of created nature. And natural science can deal solely with the laws of created nature. Even if miracles happened every day and in every place, it is certain that natural science could have no knowledge of them as miracles. The categories with which science works are of such a character that they could never apprehend miraculous occurences, even if they happened.

But the fact must be admitted that miracles are not to-day regarded as of the same evidential value as formerly. The increased study of the sciences has led men to look to a greater extent to nature itself for the revelation of God. We endeavour to find God *per naturam* rather than *supra naturam*. And further, it appears that in point of fact Jesus Himself laid little stress on His miracles, as evidence, apart from the quality of Divine goodness and beneficence which they shared with all His actions.[1]

As a matter of fact, the unbelieving multitudes of to-day are little helped by miracles. To the modern man Paley's apologetic seems grossly antiquated and unmeaning.

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[1] The statement quoted above is from the Fourth Gospel, and there are serious doubts as to the historicity of the discourses recorded in that Gospel. In the Synoptic Gospels He practically never appeals to them as evidence.

For Paley the central argument for the truth of Christianity was based on the excellence of its miracles, and the readiness of their original witnesses to die in defence of them. The whole argument of the *Evidences of Christianity* rested on this basis. And for Paley the testimony to the truth of Christianity from those considerations which make their appeal to the modern mind seemed to be of comparatively little value. Thus the morality of the Gospel and the surpassing worth of the Christ's character are included by Paley only among the "auxiliary evidences of Christianity." Such a view of Christianity as based primarily on miracles seems to us somewhat unworthy and antiquated.

This is not to deny that there still exists a type of mind which is greatly aided by its trust in miracles. Before submitting any name to the Pope for Canonization, the Sacred Congregation of Rites needs evidence of the performance of at least three miracles through the instrumentality of the saint in question. In times of stress, men are constantly seeking signs. But there is a profounder faith which can dispense with such signs. "Blessed are they who have not seen, and yet have believed." "If anyone," wrote S. Chrysostom, "be as believing as he ought to be, and loveth Christ as he ought to love Him, he no longer needs external signs. For such are given to the unbelieving."[1]

Far more important than the problem of miracle is that of freedom. For if the question of miracle is one about which different Christians may hold different views, freedom seems a question about which from the nature of things there can only be one view tenable by the religious mind. Much the most serious objections which science offers to the religious man arise in this connexion. This must be the excuse for our somewhat disproportionately large treatment of this subject. And, to begin with, some historical remarks must be made.

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[1] Chrysos., *Hom. xxii in Joh.* Quoted, *Essays and Reviews*, p. 128 n.

The problem of freedom as it presented itself to us when we formulated it on p. 25, was the question as to the compatibility of freedom with the apparently universal sway of mechanical laws through the realm of nature. But this is not the only way in which the problem arises. Long before the nineteenth century the problem troubled Christian theologians ; but in the form which it then took it was more usually directed to the compatibility of freedom with the Divine foreknowledge. Those who have laid stress on the universality of God's foreknowledge, and especially on His universal action in the world through the medium of grace, have always found difficulty in allowing a place for freedom. The most serious objection raised by the Pelagians to S. Augustine's theology was that it allowed no place for human freewill ; and S. Augustine could reply only by so reinterpreting the concept of freedom that it ceased to be what is ordinarily understood by freedom at all. It is only in comparatively recent times that the problem has been divested of most of its theological colouring, and become a problem which belongs pre-eminently to the sphere of ethics.

The simplest reply to the objections stated above to the possibility of freedom is to deny the law of causality ; to assert that in the physical world it is not true to say that there is a cause (or a number of causes) which determines every event. And several representative writers have attempted to defend freedom along these lines. Such arguments are of two quite distinct types. There are (i) those which come from the physicists themselves ; and (ii) those from the philosophers who endeavour to interpret the physicists.

(i) Those in the first group centre upon the facts which have led to a revolutionary theory of physical processes known as the Quantum Theory. It was first propounded in 1901 by Max Planck in his *Laws of Radiation*. It is of so technical a character that we can only give a very rough account of it here. A fuller account will be found in

Professor Eddington's *Nature of the Physical World,* though the serious student must have recourse to the original papers referred to in Professor Eddington's work.

A number of phenomena discovered in recent physics have raised considerable questionings in the minds of many physicists as to whether the causal laws have that universal prevalence in nature which has traditionally been ascribed to them. These phenomena are connected with the transfer of very small quantities of energy. Seen through the physicist's eyes, the Universe consists mainly of a world in which there takes place a constant interchange of energy from one body to another; most of the phenomena of heat, light, electricity, etc., depend on transferences of energy. Now traditionally, it has been assumed that energy is infinitely divisible; that it is possible for a body to emit or absorb any amount of energy, no matter how small. Recent researches, however, have led to this assumption being questioned. It is now generally held that there is a lower limit to energy transferences. It is parallel to the situation I should be in if I had bought nine ounces of rice from my grocer, who sold it at 2*d.* a pound. I could not pay him the exact value of it, since 1*d.* would be too little and 1¼*d.* would be too much, and there is no means of paying (in English money) an amount between the two. So it is with energy transfers. There are certain lower limits beyond which energy cannot be further subdivided, and exchanged, and these limits are known as quanta. This, in principle, is the basis of the Quantum Theory.

So far, these results may seem not to be very revolutionary; or at any rate to have little bearing on the subject we are discussing. But the theory goes a step further, and this step is of fundamental importance. We may illustrate this further step by considering again my predicament with the rice. I cannot pay the grocer the exact amount. But suppose I find that my friend Jones also needs rice, and he too will purchase nine ounces. In that case, we should be able to settle the bill fairly and squarely between us. The total cost for the eighteen ounces would be *ex hypothesi* 2¼*d.*; and if one of us handed over that amount to the grocer we should be quits.

Somewhat parallel is what happens in the cases of energy transfers. These transferences are co-operative processes in which the sum total of energy is transferred by differing elements contributing their quanta so as to make up the total amount necessary. Just as in the case of the purchase of the rice, different units contribute different amounts. In that case, Jones (unfortunately for him) paid the lot. Now the question naturally arises, Why should *Jones* have paid the 2¼*d.* and *I* get off scot free? And exactly the same question arises with regard to the energy transfers. And the answer that physics gives is that there is *no* reason. It is purely a matter of probability. On the whole, if Jones pays to-day, it will be rather fitting that I should pay next time, but there is no law on the subject. It is ultimately a matter of chance.

Now it is clear that this is quite contradictory to the traditional explanations of physics. The traditional view is that every event has a cause (or number of causes). According to that view, if I only had sufficient knowledge of the state of the physical world as it is at the present moment, and of the laws by which it is governed, I could calculate what its state would be in a hour's time with absolute accuracy. The future is involved in the present completely. Now this is just what the Quantum Theory denies. It says that there is no means of deciding in advance who shall pay the bill, which unit of energy shall be transferred. It is purely a matter of probability, which no one, no matter how great his knowledge, could foresee.

Here, then, we have an instance of the law of causality being questioned by physics itself. The bugbear of universal causation seems to be a myth which even the scientists are forced to abandon. And many thinkers who have felt the burden of a universe ruled by natural laws have welcomed this avenue of escape which the physicists are now affording.

If in the remarks which follow we are critical of this solution of the problem, we trust that the physicists will not regard us as ungrateful! After all, physicists are not concerned primarily to be of any use to anyone (except possibly to themselves, on some theories of physicists to be discussed below), so they have no reason to regard our criticisms as ungenerous.

(ii) Another attempt to escape from the tyranny of the reign of law is that made by certain philosophers. These writers maintain that natural laws do not *explain* anything; they do not connect causes with effects. The object of physics, according to these writers, is merely to *classify* events. The German writer, Mach, for example, holds that the only *raison d'être* of physics is the "economy of thought." To spare our having to remember the amount of the diffraction in every instance when a ray of light passes through a prism, optics has devised a convenient formula by which to summarize our observations, namely, the Law of Refraction. And similar views are held by a large number of French thinkers, e.g., Boutroux, Bergson, and Duhem. According to the last-named writer, the laws of physics aim merely at classification; they do not in any sense give us an *explanation* of the processes which they classify.

It is difficult to state concisely the fundamental reasons that there are for disagreeing with these writers. But we may say that the theories seem to rest on an interpretation of physics which no physicist who has thought out his aims can accept. Whether or not the physicist thinks he is successful in his results, he at least normally *believes* that he is describing something true about the nature of the processes with which he is dealing. He believes that he is explaining the physical world; and we should need strong reasons for supposing him to be mistaken.

Where we believe that the right answer to the naturalistic physicists is to be found is in the criticism of their interpretation of the causal law. The naturalists have ordinarily assumed that like effect is always produced by like causes. Hume, for instance, asserted that " the same effect never arises but from the same cause." Further, frequently there has been underlying the naturalists' assertions the assumption that there is just *one* cause to every event, though this assumption has seldom been explicitly stated. But as a matter of fact, there are evidently a very large number of causes which determine every event which occurs. The flame of the match is not caused merely by my rubbing the match along the box. It is caused also by the properties of the surface of the box and the nature of the head of the match. It is caused partly by the pressure which I exert. The one effect is the result of a large number of causes. Consequently the causal series is not merely a one-dimensional list ; it is multiform. And it is far better, therefore, to speak of the causal *nexus* than of the causal *series*. This is the first point.

Now the causal law asserts this proposition : *that* every physical event is determined by causes which appear as natural causes. *What* the causes are it leaves unsaid. And the same effect need not always be produced by the same causes. And, as a matter of fact, it by no means always is. The causal law merely states the *fact* of the concatenation of any one event, described as the " effect," with preceding events, termed its " causes."

From the standpoint of the scientist, both the effect and its causes will appear as physical in character. But this does not preclude determination from another sphere. Here lies the true significance of the researches of Kant into the nature of the causal law. Of the n determinants which bring about the "natural" effect A, there is no reason at all why one or more of them should not lie outside the natural sphere, as Kant rightly recognized. Considered from the view-point of the *effect*, the causes which bring about A will inevitably appear to belong to the sphere of nature. Every cause, so regarded, will seem to be rooted in the physical world, to be part (in Kantian language) of the "world of appearance." It is bound to operate in the natural nexus.

But this is not to say that these causes regarded in their intrinsic character are naturally conditioned. In fact, certain causes—namely, those which are occasioned by the human will—do not, as such, belong to the world of appearance at all. As Kant shewed, the world of moral action, the world of free choice, is another world altogether from the world of natural events. If I decide to make a journey to London, my decision belongs to the sphere of the will and not to that of natural phenomena. In order to carry out my purpose, I must indeed make use of nature and its causal laws. Only by an ingression from the world of free choice into that of natural laws, only by taking account and advantage of those natural laws which condition the railway journey, can I reach London, my desired end; for it is only in virtue of the causally determined character of the natural world that purposive action is possible at all. But such ingression does not violate the causal laws. It merely introduces an additional determinant into the causal nexus from a non-physical sphere.

The above is an attempt to show the compatibility of the causal law with the possibility of freedom. But the main problem of freedom lies elsewhere; it is a problem for a treatise on ethics.[1] That problem is not the freedom of the individual with respect to the natural law, but his freedom with respect to the moral law. Duty tells me in certain circumstances to do this action. Am I free, being what I am, to make a real choice? This is the *real* problem for ethics; and Kant, who was so interested in the problem of *natural* science, curiously overlooked this altogether.

For let us suppose that in a concrete situation I have discovered what course it is my duty to follow. In the face of all temptations to prolong my holiday at Brighton, I have discovered that it is my duty to return to London. Can I now be said to be free to accept or reject the moral imperative ? Or, to put the question more exactly, is it not true that if I am determined by the moral imperative, then I am determined by something outside myself ? And if there are any such reasons which determine why I should go to London and not remain at the seaside, then do I not cease to be free ? And if I obey these reasons, then can it not be rightly said that I could not have done otherwise than I did ? And if I could not have done otherwise, then can I justly appropriate praise or blame to my action ? And if I cannot, then can I be said to have acted freely ? If we try to give a rational answer to these questions we soon become aware of the difficulties in which we are involved. We are led to believe that from the nature of the case no rational explanation can be given of a free act. For to propound the reasons why I choose course X rather than course Y implies that I am determined by these reasons to choose it, and that I *could* not have chosen Y.

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[1] We mention it here merely to indicate that we are aware of its gravity, and to suggest where the solution lies.

Thought always implies determination. But there are good reasons against believing that the last word in ultimate matters rests with the intellect. In the moral sphere, the ultimate facts must be the moral facts. And here we find the facts of repentance, of consciousness of having chosen the wrong course. And unless we *could* have chosen otherwise, morality is a chimæra. " The whole meaning of morality disappears if freedom proves to be an illusion."[1]

If the above defence of the compatibility of the Law of Causation with freedom from complete naturalistic determination is tenable, then it is evident that the ordinary objections to miracles do not hold. In fact, any theory which allows for free will must also allow for miracle. The only difficulty that arises is whether, if miracles happened, we could be aware of their happening. Should we not have to *interpret* every alleged miracle in terms of natural law ?

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[1] N. Hartmann, *Ethik*, p. 568. The extent to which the present writer is indebted to N. Hartmann in the latter part of this chapter will be evident to those familiar with Hartmann's writings.

If so, are they not superfluous ? We must content ourselves with having raised such questions on the subject of miracles. To attempt to answer them would lead us too far.

Physics is at present in a thoroughly confused state. What is becoming increasingly clear is that it is no longer possible, as used to be thought, to treat its problems in isolation. This is of real importance from the point of view of those who are seeking an ultimate solution of the problems of the Universe. When physics has emerged from its present confusion, there is little doubt that the old view which was current implicitly or explicitly among physicists, that ultimate questions had no bearing on their subject will have to be abandoned.

On the other hand, it would be rash to build too much on the present " *results* " in physics. For they are constantly being revised. There are always those who will rush to the latest theory. When Newton propounded the theory of gravitation, it was soon used for apologetic purposes against the atheistic " Hobbism " of the time. Bentley, the classical scholar—it is said with the co-operation of Newton, whom Bentley describes as " that very excellent and Divine Theorist "[1]—employed it as a weapon in his Boyle Lectures. Leibniz and Clarke, we saw, each contended that his view of the nature of space was more in accord with the Theistic hypothesis. Such arguments fail to carry conviction, and are a warning against the precipitant use of Einstein or Planck for similar ends. There is much that we can all learn from the writings of such thinkers as Whitehead, Eddington, and Jeans. But we need to remember that their views are highly individual, and have received little assent from the learned world. Before pinning his faith to any of these systems, the layman would do well to follow the advice of Gamaliel (Acts v, 38 f.) : " Refrain from these men and let them alone ; for if this work be of man, it will come to nought ; but if it be of God, ye cannot overthrow it ; lest haply ye be found even to fight against God."

[1] So Clarke-Kennedy : *Stephen Hales*, p. 78.

ADDITIONAL NOTE TO CHAPTER II

ON June 21, 1633, the Congregation of the Inquisition pronounced the following judgement upon Galileo. It is a useful warning to religious obscurantists who interfere with science.

"We pronounce, judge, and declare, Galileo, that you have made yourself extremely suspect of heresy to the Holy Office, in that you have believed and held a doctrine which is both untrue and opposed to the Holy and Divine Scriptures; that is, that the sun is the centre of the Universe, that it does not move from East to West, that the earth moves, and is not the centre of the world; and that it is possible to hold and defend an opinion as probable after it has been declared and defined to be contrary to Holy Scripture. Consequently you have incurred all the censures and penalties established and promulgated by the sacred canons and other general and particular constitutions against errors of this nature. It is our good pleasure to absolve you, provided that in our presence with a sincere heart and unfeigned faith you first abjure, curse, and detest the errors and heresies in question, as well as every other error and heresy contrary to the Catholic and Apostolic Roman Church, using the formula which we shall present to you.

"But in order that your grave and pernicious error and disobedience may not remain absolutely unpunished, in order that you may in future be more reserved and that you may be an example to others, so that they may avoid errors of this character, we order that the book of the Dialogues of Galileo Galilei be prohibited by a public decree; we condemn you to the ordinary prison of the Holy Office for a period which we shall fix at our discretion; and, in the matter of saving penance, we impose that you say once a week for three years the seven penitential psalms—retaining for ourselves, however, the right of moderating, changing, or remitting all or part of the penalties and penances above mentioned."

CHAPTER III

RELIGION AND BIOLOGY

ON the whole, Christian thought has, until modern times, come little into contact with biological speculation. Tertullian, in his *De Anima*, held that the soul had an organizing principle. "There is in the soul," he wrote, "some supreme principle of vitality and intelligence which can be called the ruling power of the soul—*τὸ ἡγεμονικόν*. For if this is not admitted, the whole condition of the soul is put in jeopardy"; and Mr. Needham believes that this passage implies that Tertullian was concerned to attack the mechanistic biological theory.[1] Some trace may also be found in Greek ecclesiastical writers of a biological theory. Thus Chrysostom speaks of "the principle (*πνεῦμα*) which descends from the brain, and passing through the nerves, supplies the faculty of sensibility."[2] And Leontius of Byzantium refers to the opinions of the medical authorities who "indulge in numerous speculations about sensation and imagination and the vital organic principle (*πνεύματος*) which gives the animal consistence, being other, they say, then the rational principle."[3] But there is little in the writings of the Fathers as a whole which indicates that they had any interest theoretical or otherwise in biology. The Encyclopædic tendencies of the Middle Ages led to a considerable collection of biological data; and the rediscovery of Aristotle in the thirteenth century fostered such study. There is a very large portion of Albertus Magnus which is a collection of biological matter. The whole of the Sixth Volume of Iammy's edition,[1]—nearly 700 closely packed folio pages—is devoted to the subject "De Animalibus", and, as might be expected, there are masses of curious information contained in it. But, even so, these medieval biological speculations had little effect in influencing theological doctrines.

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[1] *Science, Religion, and Reality*, pp. 227 f.

[2] *Hom. in Eph.*, xi, 3 (PG, lxii, 84).

[3] *Cont. Nest. et Eut.*, i (PG, lxxxvi, 1296 f.).

It was not till about the beginning of the eighteenth century that biology and theology were first brought into contact. Biology was then used for apologetic purposes. In Richard Bentley's Boyle Lectures on the *Confutation of Atheism*, already referred to, three of the eight sermons rest their case on "the structure and origin of human bodies." The argument was the now familiar argument from design; that we cannot account for the delicate and marvellous structure of the human organism, except on the assumption of a Wise Disposer of the Universe. Here was a simple mode of argument, the cogency of which seemed only to increase as the study of biology proceeded. So not unnaturally, it rapidly developed in popularity. In the dedication to his *Hæmastatics* (1733)—a treatise biological and not theological in intent—Stephen Hales argued "the animal body in which there is so just a symmetry of parts, such innumerable beauties and harmonies in the uniform frame and texture of so vast a variety of solid and fluid parts, as must ever afford room for further discoveries to the diligent enquirer; and thereby yield instances to illustrate the wisdom of the divine architect, the traces of which are so plain to be seen in everything, that the psalmist had good reason to call him a fool who could be so senseless as to say in his heart that there is no God; whose masterly hand is so evident in every part of nature, that if there be any who pretend that they cannot see it, it can be no breach of charity to say that they are wilfully blind, and therefore lyars."[2] This line of apologetics, which became known as the "Teleological Argument,"[1] developed even further as the century proceeded until it reached its culmination in the writings of Paley and in the next century in the so-called *Bridgewater Treatises.*

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[1] Lyons, 1551.

[2] Quoted A. E. Clark-Kennedy, *Stephen Hales*, pp. 79 f.

The *Bridgewater Treatises* owed their existence to a bequest of the eighth Earl of Bridgewater, who died in 1829. The President of the Royal Society, who administered the bequest, selected eight men of eminence, each of whom was to contribute a treatise on the general subject of "The Power, Wisdom, and Goodness of God, as manifested in the Creation." The programmatic titles of the treatises which were produced give a good indication of the character of their contents. Thus, Dr. Thomas Chalmers headed the series with *The Adaptation of External Nature to the Moral and Intellectual Condition of Man.* Dr. William Whewell wrote on *Astronomy and General Physics considered with reference to Natural Theology;* Sir Charles Bell on *The Hand, its Mechanism and Vital Endowments, as evincing Design;* Dr. William Buckland on *Geology and Mineralogy considered with reference to Natural Theology;* and Dr. William Prout on *Chemistry, Meteorology, and the Function of Digestion, considered with reference to Natural Theology.*

In so far as the authors of these treatises took notice of the existence of evil in the world, they usually adopted the Leibnizian thesis, that it was a necessary accompaniment of the existence of the good. Dr. Prout, for example, thought that the existence of poisons could be adequately accounted for on this hypothesis. Why, he asked, should "the mild and innocuous common salt be composed of two elements which, in their separate state, would instantly destroy life?" Here, he replied, is an inscrutable mystery. But he added, "that these incompatible properties of the elements . . . do in some way contribute to the perfection of compounds, we cannot doubt; and the only grounds on which such incompatibility seems to admit of explanation is, that it results necessarily from those limitations which the Deity has thought proper to prescribe to His power and to which He always most rigidly adheres."[1] Considerations such as these did not dismay the writers of the treatises in their determination to show what a wise Disposer and Benefactor the Creator of the Universe was. His essential character was that of the Earl of Bridgewater raised to the *n*th degree.[2]

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[1] Kant describes it by the clumsy title "The Physico-Theological Argument."

Paley and the *Bridgewater Treatises* had said the final word; and there was little left for their successors to do except to repeat their arguments. Nothing in the matter of impressiveness could be added to them; for they seemed absolutely convincing. Even Kant admitted the impressiveness of the teleological argument and treated it with a respect which he declined to offer to the other arguments for the existence of God. And such defects as he discovered in it were at any rate of little account, because in England Kant was little read by philosophers, and still less by theologians, in the earlier part of the nineteenth century. It is not surprising, then, that the appearance in 1859 of the *Origin of Species*, which seemed completely to overthrow it, created a great upheaval in Natural Theology.

Darwin, of course, was not the first to propound the theory of organic evolution. Before him, it had for some time been held as a possible explanation of the large variety of species in the animal and vegetable worlds. The idea of evolution was, it might be said, in the air. The systems of both Leibniz and Hegel contained strong evolutionary elements. The success which Darwin's work at once secured was due to the fact that it propounded a theory as to *how* evolution worked; and much more than this, it was a theory which its author was able to support by a vast number of empirical facts collected after long years of patient research. No longer (so it seemed) was the evolutionary theory a mere hypothesis ; it was the only possible interpretation of a large store of actual data.

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[1] Bohn's edition, pp. 137 f.

[2] Each of the authors received a clear profit of £700 to £800 from the benefaction; and presumably, to judge by the circulation of their works, a very considerable further sum from royalties which the Earl of Bridgewater provided should go to the authors.

Only a minority of the treatises and papers in which the important scientific theories have been first published are suitable for the general reader. But there is no doubt that the *Origin of Species* belongs to this minority, and deserves to be read by everyone interested in biological science. The phrases which indicate the essence of the Darwinian theory have now passed into our common language. They are "biological variation", "the struggle for existence", "the survival of the fittest." The organic world is ruled, so the theory contends, by acute competition. Every healthy plant or animal produces a far greater number of offspring than can possibly survive. There is an unending struggle in progress for survival among these offspring ; and it is only the fittest which ever reach maturity. But how, it may be asked, does it come about that there are degrees of fitness ? This is due, Darwin replied, to the differences, the biological "variations", in the offspring of one and the same plant or animal. The same pair of parent giraffes produce offspring which have necks of varying length. When these offspring find themselves dependent for food on the high date-palm, it is evident that in certain circumstances only the long-necked offspring will be able to reach them. In virtue of their long necks, these will have a very definite advantage in the struggle for existence over their brother and sister giraffes. Long-necked giraffes, then, tend to survive. They transmit their long necks to *their* offspring. And by the progressive modification of organs, inevitably occasioned by the struggle for existence, eventually new species are reached.

It was evident that the new theory could readily account for the origin of man. Man was only one further biological species, whose existence could be explained on the same lines. Darwin, it is true, avoided drawing this conclusion in the *Origin of Species.* It was only some twelve years later in another work, *The Descent of Man*, that he himself expressed this view. But it was evidently a natural implication to draw from the theory, and the rest of the scientific world, less cautious than Darwin, did not wait till he had done so.

Such is the essence of the Darwinian theory. It is not necessary to trace the history of the evolution theory since Darwin propounded it. We may summarize the subsequent course of biological research by saying that though practically all students of the science accept the *fact* of evolution, the method by which evolution proceeds is still a matter of dispute. The Darwinian theory depends on the existence of variants between the offspring of the same pair of mates, and on the transmission of the variations in the offspring to their successors. It depends, that is, on the inheritance of acquired characteristics. Otherwise, there would be no reason why the giraffe's neck should get progressively longer.[1] This doctrine is so vital to the Darwinian theory that when biologists questioned this doctrine, it became usual for theologians to ally themselves with such biologists, and a theologian's views on the subject tended to become a test of orthodoxy. A wider vision has made it clear that, even granted the non-transmissibility of acquired characteristics, the evolution theory is not thereby disproved. And, for those who are concerned to maintain the doctrine of inherited original sin, any theory which denies the transmissibility of acquired characteristics creates obvious difficulties.

The immediate reaction of theologians to the *Origin of Species* was one of complete hostility. Everything was ready for a battle. Recent discoveries in other fields had made the theologians more and more distrustful of the claims of science, and there was a highly tense atmosphere on both sides. And Darwin immediately found in Thomas Huxley a redoubtable defender who was determined to fight. Never was Huxley more delighted than when he was asked to write the review of *The Origin of Species* for *The Times*.[1] At the Oxford meeting of the British Association in 1860 matters reached a climax. Exactly what was said is not deducible from the extant records. But the Bishop of Oxford (Dr. Wilberforce) and Huxley certainly dealt violent blows at each other. The matter is judiciously slurred over in the life of Samuel Wilberforce; and there is no official record of the meetings of the Association. But it is clear that the issue turned on the relative dignity of being related to a monkey and a bishop.

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[1] The phrase "the inheritance of acquired characteristics" is sometimes used to *distinguish* Lamarckism from Darwinism; and applied only to the former. Here it must be taken to include both. This is certainly the natural meaning of the phrase.

The reasons why the Darwinian theory caused such searchings of heart for the theologians may be said to be threefold, namely :—

(i) It seemed derogatory to man's dignity.

(ii) It seemed to overthrow the force of the Teleological Argument.

(iii) It was manifestly in conflict with the Biblical account of the origin of man, and the (apparently) Biblical teaching of the fixity of species.

We have dealt with (iii) in another place in this volume. But something must be said here of (i) and (ii).

(i) The opponents of the Darwinian theory contended that it detracted from man's dignity. They felt that it was unfitting that man should have had as his ancestors the "lower animals."

The only reply we can make is that such contentions seem to us to rest solely on sentimental prejudices. The character of an object can never be understood from its history. The grandeur of a Gothic building or the beauty of a painting cannot be measured by the nature of the materials out of which it has been constructed. And so it is with man. If we would judge of his dignity we must study him as he is, not as his ancestors were. And it is well to remember that the traditional view gave no particularly high account of the origin of Adam. "Dust thou art, and unto dust shalt thou return." (Gen. iii, 19).

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[1] See Huxley's *Life and Letters*, i, 176 f.

(ii) It is less easy to dispose immediately of the criticism from the side of teleology. It cannot be denied that the argument in the *Bridgewater Treatises* was immensely impressive, and seemed clearly incompatible with the view that the Universe came into existence by chance. Does not Darwinism detract altogether from the force of the argument? Does it not maintain that thrushes have protective colourings, not because God in His wisdom saw the need for such colouring, but because only those thrushes which happened to possess it have survived in the brutal struggle for existence? Are not the webbed feet of water-fowl to be explained not by Divine forethought, but by the necessities of natural existence? And, in consequence, are not the *facts* which older biologists could explain only on the presupposition of infinite Divine care susceptible of a simpler and non-theological explanation?

These considerations certainly detract from the impressiveness of the older theory; and that biologists now have a *simpler* explanation of the facts of adaptation must, of course, be admitted. But it is less certain that the force of the teleological argument has been overthrown. In fact, as we shall proceed to show, the argument stands *in principle* just where it was before.

What, it seems, has been effected by the evolutionary theory is simply a reduction in the number of data to be explained, or, rather, in the subsumption of a large number of data under a single head. For the older biologists, the protective colouring of the thrush and the webbed foot of the water-fowl were separate facts for each of which a separate explanation had to be found. The defenders of the teleological argument adduced several hundreds of instances of design in the Universe, every one of which *independently* pointed to a Wise Disposer. Now the effect of the evolutionary explanation has been to unite all these separate instances of Divine operation under one heading. In the case of the Darwinian form of the evolutionary theory, that heading was the struggle for life.

But there still remains the fact of the struggle for life itself which needs explanation. The belief that life is better than death is one of those ultimate and intuitively clear judgements of value for which it is impossible to find any further justification. It belongs to the same category in respect of its evidence as the judgement that truthfulness is better than falsehood, or that Bach is better than jazz. It was on this intuitive judgement that the traditional pre-Darwinian form of the teleological argument rested; if life had not been accounted better than death, there would have been no argument to be deduced from the long neck of the giraffe. The long-necked giraffes who lived because they could reach the date-palms would have been no "better off" than the short-necked ones who died because they couldn't. If, then, life is better than death, any disposition of the Universe which tends to the preservation of life is evidence for a teleological ordering of it.

Now it is of the essence of the Darwinian theory that organic nature *is* through and through so disposed. At every step, biological changes and developments *are* disposed towards the preservation of life. The fact of the existence of "the struggle for life" throughout the whole of organic nature is evidence, far wider, if less impressive to the imagination, than anything adduced by Paley. There is no reason *in rerum natura*—teleological considerations apart—why biological changes should not be all disposed to create a "struggle for extinction." Consequently the fact that the whole of nature is disposed towards the production of life can bear all, and more than all, that was built by the older theologians upon the instances of individual design. It points to the existence of a God Who Himself loves life.[1]

Popularly, Darwinism is equated with "evolution"; so this may be the best place to make a few remarks about the bearings of the Evolutionary Theory of the Universe in general on the religious problem.

(i) It is evident that the dimensions which we attribute to the Universe, both in time and space, have been immensely increased by it. The figures which astronomers give us for the age of the Universe are so colossal that it is impossible for the mind to form any picture of their extent. The discovery of new stars constantly forces astronomers to revise their dimensions, and nearly always in the direction of increase.

But it must be clearly recognized that the increasing age assigned to the Universe brings us no nearer to a solution of the question of its origin. Roughly, there may be said to be three chief theories of the relation of the Universe to God. The first is the view that it was called into existence by God by a definite *fiat;* that there was once—not necessarily a *time*, because *time* may owe its origin to this Divine event, and have come into existence with the world—when the Universe did not exist. This is the theory of Creation. The second is that it is a necessary emanation or product of the Being of God; on this view it is held that God and the Universe are mutually implicated. It is a popular view to-day, and finds expression in the many forms of pantheism. The third is that the World and God stand in an eternally unrelated antithesis to each other. This is the Zoroastrian view.

It need hardly be said that the view which orthodox Christianity has held consistently from the outset is the first of these positions, namely, the doctrine of Creation. And it is probably the only view which is ultimately adequate to the demands of Christian theology. The point we wish to make here, however, is that the Evolutionary Theory as such throws no light whatever on the merits of these contending views. Whether the earth has existed 6000 or 60,000,000 years is a matter of complete indifference as far as the point at issue is concerned. There still remains the question as to *how* the first nebula came into being. And from the nature of things science can never throw the faintest light on this question. Eternity transcends 60,000,000 years just as completely as it does 6000 years.

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[1] *σοφοῦ τινὸς δημιουργοῦ και φιλοζώου Xen. Mem.*, I, iv., 7. Quoted article *Teleology*, H.E.R.E.

(ii) But we would point out that there are two doctrines of modern science—neither of which, indeed, is universally accepted by scientists themselves, but each of which has a large measure of support—which *do* point in the direction of the doctrine of a limited existence to the Universe, that is, to a conception of it which harmonizes with the doctrine of creation.

(*a*) The one of these is an implication from the Theory of Relativity.[1] According to this theory, from the point of view of physical phenomena, there is no ultimate distinction between space and time. Of course in our every-day thinking, space and time seem to be totally distinct entities. But not so for the modern physicist. For him time and space are ultimately indistinguishable. The size of an object is dependent on its speed; and similarly the time-interval between two successive events is a factor of their relative velocities. All this seems highly bewildering. We cannot *picture* such a state of things. But much modern physics is concerned primarily not with "picturing," but with finding mathematical formulæ which are adequate to the interpretation of facts.[1]

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[1] The Theory of Relativity cannot be discussed here. See Albert Einstein, *The Theory of Relativity*. It may be pointed out that nearly all physicists seem agreed to accept the Theory of Relativity as a whole; but not necessarily the particular application made of it in this paragraph.

Now a possible result of this theory is that there are limits to the space and time factors in the Universe. It is possible that space and time together constitute an entity similar to the film of a soap bubble. The film of soap out of which the bubble is made has no " ends." As long as a speck of dust is floating about in the film, it will never reach any boundaries. And yet the soap-film is only of a limited size; it is an endless, yet finite, object. And physicists affirm that there is reason to believe that this has some analogy to the spatio-temporal continuum of which the world is constituted.

If this is so, we have definite physical evidence which supports the theory that the extension of the world in space and time is not indefinite, and that it has absolute boundaries—that is, it points to a doctrine of creation, as against the other two contending views of the origin of the Universe referred to above.

(*b*) The other theory which gives some support to the doctrine of Creation is the biological theory known as Vitalism.

Vitalism is no new theory. Harvey, the famous physician who discovered the circulation of the blood, summarized it in the formula *omne vivum ex vivo.* Vitalism maintains, that is, that life is always the product of already existing life. And it is confirmed over a very wide range of biological observation. It has never yet been found possible either in the laboratory or elsewhere to create in a single instance life from dead materials. No matter where we find life—at the Equator or in Arctic regions—no matter whether we examine the lowest forms of plant-life or the most highly organized animals, everywhere we meet with the same tale—life is produced only out of pre-existing life. It is these facts which have led many biologists to the view that there is something in the nature of things which renders impossible the existence of life except as a product of pre-existing life. There are, it is held, in the world of living bodies categories and principles which prevail, and which have no counterpart in inorganic nature.

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[1] We state this as a fact, without wishing to endorse the justice of self-imposed restrictions of such physicists. For a thorough criticism of such doctrines, see E. Meyerson, *De l'Explication dans les Sciences.*

Now if this is so, then it at least points to a break in the line of development. For it is highly unlikely that life as we know it was to be found upon this planet for the greater part of its existence. The earth was once too hot to support anything like life. Consequently, there must have been a break in the history of the earth when the first plant appeared. Here was a creative act which violated the principle *omne vivum ex vivo.* And such a gap at least harmonizes with the existence of a similar gap in the history of the Universe itself. There may well have been a time when this too came into being, was *created.*

Once the evolutionary theory is accepted, the details of biological theory have little bearing on questions of religion. Consequently, at the present time, biological science occasions no particularly serious problem for the theologian. Biology has, indeed, reached a stage at which it is marking time and consolidating its conclusions. As Mr. Dampier-Whetham well puts it in his recent *History of Science:* "Since the end of the nineteenth century great advances have been made in our knowledge of life and its manifestations, but the chief ideas by which those advances have been guided were formulated before 1901. Twentieth-century mathematics and physics, breaking away from the Newtonian scheme, have marked a veritable revolution in thought, and are now influencing philosophy profoundly. Twentieth-century biology is still following the main lines laid down before the century began."[1] And there is nothing in modern biology which corresponds to the advances in the realms of the New Psychology and of Psychical Research. Though " Einstein has now placed himself upon the throne formerly occupied by Darwin,"[1] the world of biology still remains a world in which to those who have spiritual eyes the finger of the Creator can be traced at every turn. Principles and facts need not lose their interest, even though they have been the common property of the scientific world for thirty or more years.

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[1] Page 346.

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[1] E. Rádl, *The History of Biological Theories*, p. vi (Eng. trans.).

CHAPTER IV

RELIGION AND PSYCHOLOGY

IN the present chapter we shall enter upon the discussion of a new set of problems, namely, those raised by the recent development of psychology, and their bearing upon the fundamental religious problem.

Psychology has become a topic of general interest only within living memory. The older treatises which dealt with the " conflict " between science and religion in the nineteenth century seldom included psychology among the components of the attacking force. For, until recently, " scientists " did not bother their heads very much with psychology. But it would be wrong to suppose that psychology was a new science or that its relationship to religion is a question of which only the present generation has become aware. Psychology is at least as old as Aristotle, who wrote a treatise on the subject—the *De Anima*. And from the time of Aristotle, psychology, or discussion on the character of the soul,[1] has always occupied a place in systematic attempts to co-ordinate our knowledge of the world. S. Thomas, the greatest of the medieval systematizers, treats at very considerable length of the different functions of the soul and their mutual relations. In the eighteenth century again, psychology was one of the chief branches of philosophy ; it was a third with Theology, the science of God, and Cosmology, the science of the World, as the student of Kant well knows.

As the science or treatment of the soul, it is clear that psychology is intimately connected with the problem of religion. Religiously minded men have constantly echoed the familiar assertion of Newman that the only two luminously self-evident entities are God and the soul. And for the last 2000 years, at least, the enormous majority of the defenders of religion have always demanded a particular doctrine of the character of the soul, namely, its immortal nature. The conviction of the Psalmist that the soul which had tasted of the sweetness of Divine communion will remain bound to God, even after death, has developed into the passionate belief that the soul is immortal. When a reasoned justification of this belief was sought, it was natural to study the character and structure of the soul itself. And this analytical study of the soul seemed to reveal clearly that in its very nature it possesses an element of permanence, and this possession of permanence was a guarantee not merely that the soul would survive death, but that it would continue for ever. It is clear that this psychological doctrine, if it could be defended, was one which had highly important theological implications.

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[1] For *λόγος* as speech, discussion, rather than reason, in such words as " psychology ", cp. Heidegger's *Sein und Zeit*.

The existence of this intimate connexion between religious thought and certain aspects of psychology was in fact generally recognized until the beginning of the nineteenth century. Largely under the detrimental influence of Kant, as the century advanced a new view of psychology entered the field. For those who want a clear-cut answer, Kant's own views on the nature of the soul are very unsatisfactory and very difficult to ascertain. There is little doubt that his mind altered from time to time—almost certainly between the first (1781) and second (1789) editions of the *Critique of Pure Reason*. But it is quite clear that the whole tendency of his teaching was to dissolve the soul, like the other elements in the created world, into a system of relations with no substantial basis. Have we any ground for believing that there really *is* a soul? A view which defines psychology as the science of the soul seemed to involve far too great metaphysical assumptions—so the psychologists of the middle of the nineteenth century argued. Cannot a method of psychological study be devised which shall be free from these assumptions, which does not assume an answer to the highly debatable question of the soul's existence ?

The supposed difficulties were obviated by defining psychology as the science, not of the soul, but of psychical facts. Thus Lange spoke of " psychology without a soul."[1] And John Stuart Mill, in one of the famous chapters at the end of his *Logic*,[2] gives an exposition of the subject matter with which psychology, so conceived, has to deal. It was believed that with this new conception of psychology, any metaphysical barriers which the traditional idea of the science imposed were removed.

It might have been expected that psychology as a science would have made in an age of science similar advances to those made in physics and biology. The highest hopes have been set in this direction by many of its foremost students. On the whole, such expectations have not been fulfilled. As regards the basic problems, there is little which has brought them nearer to solution. There are psychologists who assert the priority of will over intellect, and others who maintain the opposite thesis. As concerns definite "results" as the scientist understands them—that is to say, irreformable propositions and theories which are on the way to general acceptance because of their being the sole possible interpretation of the facts—psychology has on the whole been unsuccessful in securing them. There are very wide differences between different psychologists and different groups of psychologists. And until psychology ceases to be a body of " opinions " held by " schools " and becomes a body of " facts ", it cannot claim to have achieved its aim as a scientific discipline.

If an explanation be sought for the somewhat unsuccessful course of modern psychology, it may be suggested that there is an increasing consciousness among many thinkers—

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[1] II, 303 (ed. H. Schmidt, Leipsig, 1926).

[2] Bk. VI, c. 4, §3.

particularly in Germany, where psychology has been most intensively studied—that the *methods* it applies are wrong. And this for a two-fold reason :—

(i) The "scientific" world in the middle of the last century had a long mathematical-mechanical tradition behind it. Nearly all the great advances in science had been made on the basis of the Kepler-Newtonian mechanics.[1] And not unnaturally, this physical method came to be regarded as the method of science *par excellence*. It was with this prototype that modern psychology entered upon its researches. When psychologists set about "scientifically" studying their subject, they ordinarily adopted this same mathematical-physical method. It was thought that psychical data were primarily data which should be counted and measured. Thus Herbart deduced elaborate mathematical laws and formulæ for treating of the psychic life ; Fechner formulated a law expressing the relation between the change in a stimulus and psychical perception ; and Wundt, by his establishment in 1875 at Leipsig of the first psychological laboratory in Europe, started a tradition that psychical life should be investigated by apparatus corresponding to balances and crucibles.

It is not surprising that this method has not been very successful. The most radical cleavage in the realm of created things with which we are acquainted is that between spirit and matter. And surely it would be a most extraordinary coincidence if those methods of research which proved suited to the study of the one should be substantially identical with those needed for the study of the other. The adoption of the mechanistic method has been the reason for the constant tendency of psychologists to subject mind to matter. The general assumption that the soul is an entity which is to be investigated on the basis of principles derived from the study of the material world has easily passed over into the assumption that the soul is itself but a product of the material world. It is, so so speak a by-product, an " epiphenomenon " as it has been described.

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[1] Cp., e.g., E. A. Burtt, *The Metaphysical Foundations of Modern Science*.

The nemesis of this method of study is seen in Behaviourism. The baneful effect of the application of modes of research adapted to the investigation of material nature to the science of the soul is clearly illustrated in the following passage written by Dr. J. B. Watson, one of the leading exponents of Behaviourism. "The behaviourist," he writes, "takes the position at the outset that the total behaviour of man from infancy to death is the subject-matter of (human) psychology. Behaviour can be observed like the phenomena of all other natural sciences; e.g., chemistry, physics, physiology, or biology. The same general types of methods used in the natural sciences can be used in behaviour psychology. So far in his objective study of man no behaviourist has observed anything that he can call consciousness, sensation, perception, imagery, or will. Not finding these so-called mental processes in his observations, he has reached the conclusion that all such terms can be dropped out of the description of man's activity."[1] Nothing could show more clearly that the Behaviourist's conclusions are but the inevitable result of the Behaviourist's method.

(ii) The other criticism which may be made against the science of psychology as ordinarily conducted is that it overlooks the large part played by the category of *individuality* in the mental life.[2] Even in the science of biology, individuality occupies a place to which there is nothing to correspond in the inorganic world. The biological organism is a totality of mutually conditioning parts; and in it all these parts are teleologically subordinated to the life of this totality. But in psychology individuality occupies a still more important place. Here we are concerned with a number of mental units, each of which belongs to the world of history and as such never recurs. Like other objects in the historical realm, the mental life of each of us possesses what Troeltsch has well described as the property of " Onceness " (*Einmaligkeit*). It is of the essence of human personality that there should be only one Shakespeare, only one Dr. Johnson, only one Bernard Shaw ; and that each of these personalities should be a single whole.

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[1] *Encyclopædia Britannica*, s.v. Behaviourism, 14th edit.

[2] The recognition of this limitation in current psychology is one of the many valuable contributions to philosophy made by Wilhelm Dilthey.

If this is so, we cannot expect ever to reach the essence of the mental life of the individual by a synthesis of the elemental factors of which the current psychology assumes it to be compounded. We can never discover by such processes all the factors which constitute the person *X*, just because the most important of these factors will be met with only in *X*. The very fact that *X* is a historical individual precludes the subsumption of his character under a body of psychological laws.

As the specific nature of psychological method and the fundamental part played in it by the category of individuality becomes increasingly recognized, it is probable that the scepticism as to the existence of the soul will be gradually dissolved. After all, men and women are normally convinced that their mental life is rooted in some unifying substantial principle. The preacher has rarely to insist on or prove to his congregation the existence of their souls. When he speaks to the unsophisticated of the life of the soul, he is speaking of something which it would hardly ever enter their heads to doubt. And these unconscious presuppositions, when so widely shared, are likely ultimately to prove correct. The views of Hume and Kant will never command general assent just because they are so plainly in contradiction to the consciousness of the ordinary man.

And on this particular point there is a movement in favour of the substantial soul even in the present-day " physical psychology." One of the fullest treatments of the subject is in Professor McDougall's *Body and Mind*. One of the most widely influential writers on modern psychology, he reviews from a large number of different standpoints the evidence for and against the existence of the soul, for and against the doctrine of "animism," as he terms it. And he decides, after allowing the fullest weight to all the objections to it, definitely in favour of the "animistic view."

There is one point in which the assertion that modern scientific psychology has been to a great extent barren of results needs serious qualification, that is, in two specialized branches of the science of psychology known as the "New Psychology" and "Psychical Research." The success achieved in these two departments of the science has been so marked, and their subject-matter seems to touch what are evidently such very living questions for every one that the results that have been reached have become widely known; and in the minds of those who have made no study of psychological problems, the words "psychology" and "psychic" are apt to suggest either one or other of these branches. It must, however, be observed that they are both highly departmental studies. It is clear on reflexion that they occupy only a small area of the whole field of psychology, and that the complete interpretation of the results they yield is possible only in the light of answers to the wider questions. Since both of them raise points of great importance for the nature of religion, it will be necessary to treat of them in some detail.

(i) *The New Psychology.* The New Psychology is the name given to a particular psychological theory—or, rather, a number of psychological theories—associated with the names of Professors Freud of Vienna and Jung of Zurich. We cannot give a full account of the theory here. But sufficient must be said of it in order to enable us to appreciate the character of the attack which it makes upon religion, and to understand how it can be claimed that it gives rise to a conflict "a great deal more severe than the conflict of a generation ago,"[1] namely, the conflict between religion and evolution.

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[1] J. A. Hadfield in the *Modern Churchman*, XIV, 333.

Roughly, it may be said, the New Psychology is an attempt to interpret all the facts of the psychic life in terms of sex.[1] Freud holds that from the moment of birth—possibly even earlier—human life is dominated by impulses which are organically connected with the sex instinct. When, for example, the baby sucks its thumb, it is giving expression to its rudimentary sex-passion ; we have here an instance of early autoeroticism. " In this connection, the mouth and lips are revealed as erogenous zones, a significance which they later retain in normal life in the kiss."[2] What begins in childhood continues through life. Try as we will, we cannot escape from the all-pervading influence of the sexual passion.

But we have grown up, Freud contends, in a tradition which leads us constantly to suppress our sex instincts. Much of what would normally go unrestrained if we lived a " natural " life is repressed into the Unconscious. Below the " threshold " of consciousness—the word " threshold " has become a *terminus technicus* among the New Psychologists—there is a vast region where all the events of our past psychic life are stored up as in the memory, and here the sex-life can proceed unhindered. At the " threshold," indeed, there stands the will, and in its function as " censor " it prevents the manifestation of any unseemly acts in the *conscious* sphere ; it restrains the natural expression of the passions.

Of the existence of this repression we are normally (so Freud contends) quite unaware. In so far as we get knowledge of it, either in ourselves or in others, it is through its effects ; and these effects are ordinarily evil effects. The action of the will as " censor " causes a struggle between the sex-passion and the will, and in cases where this conflict is unusually severe, the patient may break down under the strain. Nearly all serious mental ailments are the result of struggles of this character. And even in the man who is normally mentally sound, there may be departments where this conflict is fierce, and he is subject to neuroses with respect to certain objects in consequence.

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[1] In his later writings, Freud couples the fear of death with the sex-impulse as a hardly less important factor.

[2] E. Hitschmann, *Freud's Theory of the Neuroses*, London, 1921, p. 47.

Repression, then, is the normal means for dealing with the sex-impulse in order to satisfy the conventions of society. There is, however, another hardly less important treatment of it which is equally tolerable to civilized life. That is the " sublimation " of it. By this is meant that the sex impulse may be given free expression, but with its sexual character thereby disguised. And in cases of sublimation the disguise is so successful that it effectively deceives not merely society as a whole, but also the man whose experience it is. The man sincerely believes that he is quite free from sex-impulses, whereas he is really as much under their sway as the most sensual of men.

Now of the various kinds of sublimation, one of the most important is the sublimation of sex into religion. Indeed (it is contended) religion at bottom is only sex transformed. The fear of Yahweh is only the sublimation of the Œdipus complex—of that acute tension, essentially sexual in character, which exists between the father and the child. The language of the mystics about their consuming passion for the Heavenly Bridegroom is still more evidently only the normal passion of man and woman in another form. Sublimation is far less likely to lead to conflict than repression, and consequently because religion tends to sublimate, rather than repress, it tends to the healthy development of the mental life. This, we are told, is the reason why insanity is rarer in Catholic countries. But to suppose that religion corresponds with anything of ultimate significance, to suppose that the Father in Heaven is any more than the projection of the sex instinct is to overlook the essential rooting of religion in the passions.

Anyone who meets this theory for the first time naturally regards it as far-fetched. The New Psychologists, however, can soon produce evidence. And the evidence offered is that their theory lies at the basis of modern psychotherapy, i.e., of the successful treatment of mental disease. The usual form of this treatment is for the analyst to discover his patient's complexes, to make him aware of their existence, and to elevate them in this way from the unconscious to the conscious realm. When the repressions have in this way been released, they cease to be harmful. And it must be admitted that the practice thus built up on the theory has been productive of a large number of cures. The War brought a quite unprecedented number of cases of men suffering from shell-shock, and other forms of neurasthenia ; and the method of the " psycho-analysis " in many cases worked successfully.

The importance of the New Psychology consists, therefore, largely in its therapeutic applications. And consequently the chief criticisms which have been made of it are concerned with the practical aspects of it. It requires far too technical a knowledge of psycho-analysis, and at least some experience in the practice of it, in order to be able to estimate the value of these criticisms. But we may summarize the position simply by saying that there is every reason to suppose that by subjecting the patient to analysis, much of which he was hitherto unaware is " released," and in so far conflicts are solved. But concomitantly with this release of the harmful neurosis, experience seems to prove that quite frequently other elements are called up from the subconscious which had far better have remained in their oblivion. And the harmful effects of these elements may so counteract the " cure "—perhaps not immediately, but very likely subsequently—that it may be better for the analysis never to have taken place. It is as the result of experiences of this character that certain of the most eminent mental specialists deprecate the use of psycho-analysis altogether.

On its more theoretical side, there are two main criticisms, which may be justly made against the New Psychologists' interpretation of the data.

(*a*) They extend the sphere of sex so widely as to divest it of nearly all its meaning. From the time of the earliest Greek philosophers there has been an unending series of attempts to explain the Universe in terms of a single category. If with Thales of Miletus water is taken to be this category, then with a little ingenuity it is possible to find traces of water everywhere, and to adduce facts to show that even the driest substances are only transformed water. The history of philosophy shows countless examples of this tendency, down to Alexander's Space-Time as the basic element, in our own day.

And so it has been with mental life. If when the baby sucks its thumb, anyone asserts that this is a manifestation of the sex impulse, nothing can possibly refute him. But it may equally well be argued that the category of sex is not the only category in terms of which it is possible to interpret the psychic life. We hear much to-day of inferiority complexes ; and with a little ingenuity it would not be difficult to develop an equally convincing theory of the whole of psychic life, interpreted in terms of that complex. Those who have inferiority complexes are recognized as seeking satisfaction in ceaseless activity ; and the baby would presumably on the inferiority complex theory suck its thumb as the most ready escape from a rudimentary inferiority-phobia that it was wasting its time.

The fact is, the sexual impulse is only one impulse among many. Freud and his associates have probably succeeded in proving that this impulse occupies a considerably greater place in life than had hitherto been assigned to it. But it is very far from covering the whole field of psychic life.

And when we turn to religion, we may ask whether it does not take all meaning out of the word " sex " if we are to use it to describe all the manifold phenomena in which religion is manifested. There are, of course, instances where these phenomena are pathological in character, and in such cases religion is undoubtedly closely connected with the lower passions. But the great majority of religious lives are those where religion is healthy, thoroughly healthy.[1] And to describe them in Freudian terms is very misleading.

(*b*) Our second criticism is a not less fundamental one. It is that in the very nature of things the New Psychology can never overthrow religion. For what do its claims really amount to? The answer is a number of assertions which, when analysed, prove to be only *genetic* in character. That is to say, the New Psychology tells us how religious experiences are generated and how they are conditioned, but not (as its exponents seem to imagine) what they are. Now the mode of generation of an object can never explain to us what it is.[2] When the Neo-Psychologist tells us that the concept of God is a projection of the Father complex, he has merely made an assertion as to how the concept of God arose; he means that complexes which originally expressed a human relationship between the child and his parent have been " sublimated " so as to express a religious relationship between God and the Soul. But as to *what* the religious concept, the concept of God, is, he leaves us completely in the dark. If you were told that water is combined hydrogen and oxygen, you would still be in pretty complete ignorance of the nature of that liquid until you had come across it. If you were told that green is formed by mixing yellow and blue, you would still not know what green is. The analysis of the composition and structure of the egg will never give you the nature of the pullet into which it is transformed. No more is it possible to deduce the nature of the religious experience from an analysis of the elemental experiences out of which it is compounded.

(ii) *Psychical Research.* The name Psychical Research would no more give an idea of its subject-matter to one ignorant of its character than the name the New Psychology.

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[1] Not necessarily " hearty " !

[2] No one has insisted more strongly on this point in recent times than Edmund Husserl.

But like the expression " New Psychology " this term has also come to be restricted, as everyone knows, to a very limited branch of psychological enquiry. It is used to describe the investigation of certain alleged psychical phenomena which may be described, in the language of F. W. H. Myers, as "supernormal." Among these phenomena a large amount of heterogeneous matter must be included.[1] Psychical Research treats of such phenomena as telepathy; water-divining; alleged communication with the departed; *Poltergeists;* automatic writing; crystal-gazing. All such phenomena evidently lend themselves easily to frauds on the part of quacks, and the influence of eighteenth-century rationalism led to their being regarded purely as such until the latter part of the last century. But with the decline of rationalism, these phenomena again forced themselves on the mind of the learned world; and in 1882 the Society of Psychical Research was formed to enquire systematically and as far as possible without prejudice into their character.

The evidence alleged for these and allied phenomena is very various. On the whole, the general tendency of those who have investigated them scientifically has been to give credence to them, though it is frequently held that the evidence is far from convincing. There are, it must be noticed, three serious difficulties in the way of estimating the evidence.

(*a*) The first of these is the chance-factor. The Society for Psychical Research has collected a large number of instances of alleged "supernormal" knowledge. For instance, many cases are quoted in which people have had a presentiment of an event which was to happen, several days before it took place. There seem to have been no

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[1] The article " Psychical Research " in the new edition of the *Encyclopædia Britannica*, written by the President of the Society for Psychical Research, gives a good orientation. Reference may also be made to Sir William Barrett's *Psychical Research* in the Home University Library.

" natural " reasons to have led the people to expect its occurrence; yet their presentiment has turned out to be true sometimes even to small details. If such cases alone are examined, of course the evidence seems convincing. But in estimating the evidence it is necessary to remember that there is probably a vastly larger number of other cases where such presentiments have occurred and there has been no corresponding fulfilment. And these latter cases are forgotten; no one troubles to report them to the Society for Psychical Research. In the majority of these latter, the man who experiences the presentiment probably does not say anything to anyone else about it, and the result is that the recorded cases are a highly selected set of cases. And consequently it is always possible for the sceptic to urge that these alleged instances are in fact due to pure chance. However fantastic one's presentiments of the future may be, they are not likely inevitably to prove wrong. And it is these rare cases when presentiment has been verified that a " supernormal " explanation of them is sought.

This objection on the score of the difficulty of estimating the chance factor may equally be made against the majority of the other subjects which psychical research investigates, such as telepathy and water-divining.

(*b*) The second difficulty is that occasioned by the large part that the sub-conscious is now supposed to play in our mental life. By far the greater part of our mental life, it is generally held, takes place in a region which we know practically nothing about. Except in so far as our mental life crosses over the threshold of consciousness, we are bound to rely mainly on conjecture as to what its character is.

Now in the investigation of certain psychical phenomena, this raises a very serious problem. Everyone knows that there are large numbers of people who profess to be able to get into communication with the departed. Certain phenomena are observed in this world, and it is alleged that the origin of them must be sought for in spirits whose realm of existence is another world. But how far, it may be asked, may not these phenomena of which the causes are said to be found in the world beyond be caused really by factors in the subconscious life of individuals existing here? May not the communications which are alleged to come from the departed come really from the subconscious regions of the medium? Or may not the medium have the power of extricating material stored up in the subconscious regions of other people of the existence of which perhaps the people in question have no inkling? The very introduction of the subconscious and the important place assigned to it presents a very formidable difficulty for the exploration of such phenomena.

(*c*) The third difficulty is one which is theoretically less insuperable, though *de facto* it presents a serious problem. All are agreed that certain persons are much more susceptible to psychic phenomena than others. When Saul wanted to see the soul of Samuel, he found it necessary to invoke the assistance of the witch of Endor. The "medium," therefore, is a professional person. And, since the development of Spiritualism, the great majority of those who possess and employ psychic powers have been people who are concerned to defend—on a lower plane as a means of livelihood, or on a higher plane in defence of their cause—certain conclusions. Such people do not, that is, investigate the subject from purely disinterested motives. Consequently, when the attempt is made to estimate the evidence purely scientifically, it is very difficult to be able to secure a medium who is thoroughly trustworthy. Very frequently mediums who have professed to be willing to submit themselves to scientific treatment have turned out on careful examination to be frauds.

Still, when full weight is allowed to all these objections, the evidence is probably sufficiently convincing at least in the case of some of the phenomena with which psychical research has to deal. Perhaps where there is the best evidence is in the case of water-divining. But in this case, a " supernormal " explanation is hardly necessary ; for it is possible that the reactions of the diviner are due merely to a peculiar muscle-sensibility.

The outcome of all these phenomena seems to be to tell us that we know very much less of the relations between spirit and matter than used to be supposed. Ordinarily, the range of material objects over which our minds can extend their physical influence has been limited to our own bodies. But it would seem that this range of influence can in exceptional circumstances be extended. How interaction between spirit and matter is possible at all is still a profound mystery and there is certainly no *a priori* reason against such an extension of spiritual effects. For the case of discarnate spirits the evidence is very much weaker ; and, until further evidence is forthcoming, it is perhaps best to assume that all the alleged instances of it are the result of communications between the subconscious minds of those who are still alive on this earth.

CHAPTER V

RELIGION AND BIBLICAL CRITICISM

THE conflict between religion and science, though it had been felt, as we have seen, from the earliest times, reached its height in the last century. And the point where the conflict was then most acutely felt was where science and the Bible met. Men had come to believe that the Bible was the Word of God in the fullest sense. It was an absolute Revelation in which no assertion could possibly be untrue. But gradually science arose and asserted teachings which were in flat contradiction to the plain teaching of the Bible. The Kant-Laplace theory, that the earth was thrown off from the sun, slowly penetrated the non-scientific mind; it was a theory clearly irreconcilable with the Biblical assertion that the sun and the moon were created only on the fourth day. Lyell's *Principles of Geology* (1830) likewise gave no support to the cosmogony of the first chapter of Genesis, and took no account of the Flood. And later the *Origin of Species* completely shattered the accuracy of the Genesis account of the origin of man. Every Christian, however, possessed his Bible—and read it. It is not surprising, therefore, that the new discoveries in the field of science created difficulties of the most formidable character for the devout Christian of the nineteenth century.

The view of the Bible with which he was armed, however, was not that which had been universal in the Church. Of course, at the outset, the Church had no Scriptures except the Old Testament; and for some centuries there were considerable differences of opinion in different parts of the Church as to exactly which books constituted the Bible.

Gradually a Canon of Scripture received universal acceptance. By the Middle Ages, the authority of Scripture had become, of course, theoretically unquestionable. S. Thomas, in common with his contemporaries, considers that God is the First Cause of all the inspired records ; and S. Thomas's whole treatment of Scripture is such as is natural on such a theory of inspiration. But even so, there was not in practice that absolute authority attaching to Scripture which it was later to possess. For the authority of Scripture was always controlled and guarded by the body which had written and approved of the Scriptures, namely, the Christian Church.

At the Reformation, at least in Protestant countries, the restraining and controlling influence of the Church was removed. The authority of Scripture and that of the Church were set in opposition ; in fact the Reformation took its rise from the consciousness of a sharp opposition existing between them. S. Paul's Epistles were held clearly to indicate that a man was justified by Faith alone ; the Church's teaching and practice to imply that justification took place through the Sacramental system. Luther's experience left him in no doubt as to which of these two theories of justification was correct. Scripture was right and the Church was wrong ; and to suppose that the Church could rightly interpret Scripture was in manifest contradiction with the truth.

So Luther and his friends argued. The authority of Scripture was divorced in consequence from that of the Church. And the reverence for the written word increased accordingly. All attempts to save the face of Scripture by the allegorical method which had been so much used in the Middle Ages were rejected. Luther spoke of such interpretations as a "beautiful and seducing harlot," a "monkey-trick."[1] Two movements in the English Church both contributed their share to this process. The Evangelical Movement of the eighteenth century—in spite of the emphasis which it laid on personal experience and " enthusiasm "—was to a great extent a reassertion of the authority of Scripture. The early Tractarians also laid the greatest emphasis on the direct inspiration of Scripture. The more liberal views (for that date) which Pusey held in the twenties, which found expression in his controversy with H. J. Rose, he later repudiated. And among the orthodox it is probably true to say that in the first half of the nineteenth century there was accorded to Scripture an inspiration greater than ever before. Strictly speaking it is wrong to describe it as *literal* or *verbal* inspiration ; it was not the letters or the words which were conceived of as definitely inspired so much as the sense. But the inspiration of the sense was believed to be absolute and plenary.[1]

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[1] Quoted L. E. Binns, *The Evangelical Movement in the English Church*, p. 148.

Parallel with this increasing reverence for Holy Scripture there developed on the fringe of the Church and outside it another tendency of quite a different character. The eighteenth century was the age in which the historical consciousness which characterizes the Modern World came into being. Gibbon's *Decline and Fall* and Voltaire's *Siècle de Louis XIV* are two of the first-fruits of this new method of historical investigation. It was only natural that the method should be applied to the Bible ; and the first scholars to do this were Roman Catholics. That they should have been Roman Catholics appears strange to us when we consider the rigid attitude taken by the present-day Roman authorities to criticism ; but it is less strange when we consider the fact already pointed out, that for Catholicism there is a higher authority than that of the Bible, namely, that of the Church. The original challenge of traditional conclusions was in reference to the structure of the Book of Genesis. Richard Simon, an Oratorian ; Jean Astruc, a French physician ; and Alexander Geddes, a Roman priest, were the first to question the traditional views.

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[1] Cp. on this V. Storr, *The Development of English Theology in the Nineteenth Century*, p. 178.

But these earlier writers were far from dogmatism. Simon, for example, asserted that "it is *probable* that if only one author had composed [the Book of Genesis], he would have expressed himself in fewer words, especially in a history,"[1] and Astruc was so restrained as to entitle his work: *Conjectures sur les Mémoires originaux dont il paroit que Moyse s'est servi pour composer le Livre de la Genèse.* These writers conjectured that the Pentateuch, so far from being a single document which was written by Moses at the dictation of God, was a compilation of several different documents; and once the unity of the Book had been questioned, it was only a natural step to question its authorship. The tentative assertions of Simon and Astruc gradually became, at least outside the Roman Church, definite theories, and as the result of nearly two centuries of investigation the belief that the Pentateuch is a composite work, that its component parts contain many contradictions, and that all, or very nearly all, of its contents were first committed to writing at a date long subsequent to the time of Moses is hardly questioned by any competent critics of the present time.

Into the history of the steps by which the theory of plenary inspiration has been overthrown it is not possible to enter here. It was mainly the work, not of English or French, but of German scholars. The result was a complete reconstruction of the current ideas of the development of Old Testament history. Much that had hitherto passed for history was relegated to the realm of myth. There has been a constant revision of the dates of documents. The Psalter, for example, so far from being a work of David, is probably a compiled Hymn Book, and the dates of its constituent Psalms differ widely, some at any rate being not earlier than the second century before Christ. Few of the Proverbs are the work of Solomon. And so on. There are, of course, differences between the critics on matters of lesser importance, but there is a general unanimity among competent

[1] Quoted, A. T. Chapman, *An Introduction to the Pentateuch*, p. 28.

scholars as to the general course of the development of Hebrew history and religion; and in its main outlines the picture—differing widely from that of the pre-critical view—is never likely again to be questioned.

If such were the nature of the Old Testament—a number of documents of widely differing dates which appear to have no unity of purpose, often closely paralleled by and similar in character to the corresponding writings of non-Hebrew, or even non-Semitic, religions—it was difficult to suppose that any absolute inspiration attached to them. Is there, it was asked, any reason to accord absolute truth to the cosmological theories of Moses whereas no one would ever think of having recourse to the corresponding cosmological speculations of Assyria or Babylon for scientific information? The growth of Old Testament criticism has completely changed men's attitude to the nature of Biblical inspiration. From the point of view of science, the records of the Old Testament are worthy of no more credence than those of other contemporary religious literature. Consequently the conflict between science and religion—conceived as to a great extent it was in the last century as a conflict between science and the Old Testament—is never likely to be seriously revived.

But, though the modern view of Scripture is now generally accepted among the educated, it must not be forgotten that it still has a great hold on the popular consciousness. Belief in Christianity is still largely identified with belief in the Bible. A curious instance is the naïve assumption of educationalists that the Bible, uninterpreted, is the highest common factor of all Christian denominations. There are many who are still somewhat shocked when a religious teacher denies a Biblical assertion; there is a feeling that however much he may doubt individual assertions, he should keep his doubts to himself. Consequently the new view of the Bible is not always preached from the pulpits with that frankness which the subject demands. But it must be remembered that even for the more enlightened Christian world, the new position accorded to the Bible was reached only after a long struggle. And to some of the more outstanding incidents in this struggle we must now turn.

The reader who wishes to know the attitude to the Bible taken up by plenary inspirationists and the gradual change of attitude in the last century will, if he reads French, find much curious information in the Abbé Houtin's brilliant *La Question Biblique chez les Catholiques de France au XIXme Siècle.* The book naturally deals mainly with the French Catholics; but there are constant glances in it at the contemporary development of Biblical scholarship in non-Roman Catholic countries. For a long time, as Houtin points out, the test-case was the flood. One attempt after another was made to harmonize the record of Genesis with the results of Geology. Deluc's opinion that "a few mountain peaks in one part of the globe were not reached by the flood—or at least were reached by it only for a very short period,"[1] was thought by the orthodox to be an hazardous concession to the scientists. Another rationalization of the story—equally obnoxious—was that of Maupied, who held that the universality of the Flood was merely "relative to the human race"[2] and that the unoccupied deserts probably escaped inundation. When Lyell, in 1830, published his *Principles of Geology*, in which he denied the Flood altogether, he bewailed that for a long time he was subjected to a sort of social ostracism.[3] It was only as the century advanced that these liberalizing views gained a measure of support. But they did. And Houtin shows how at the end of the century two of the professors at the *Institut Catholique* in Paris abandoned the doctrine altogether. Loisy (professor only till 1893) regarded it as a development of a Babylonian myth; and de Lapparent, the professor of Geology, published in 1899 the fourth edition of his

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[1] Houtin, p. 11.

[2] *Ibid.*, p. 187.

[3] *Ibid.*, p. 186.

Traité de Géologie, in which he did not think it even worth mentioning.[1]

Not dissimilar was the history in England. The conflict, as we have seen, reached its height just after the middle of the century. The publication of the *Origin of Species* created a storm ; and the orthodox who could not bear to think of their ancestors as akin to types in the Zoological Gardens, at once took up the cudgels against Darwin. Genesis indicated clearly, when all allowance was made for chronological errors, that at a period not earlier than about 6000 B.C. our primal ancestors were born in Paradise. Was it not blasphemous, then, to suppose that the human race had developed out of lower types as the result of a long evolutionary process ?

Almost contemporary with the *Origin of Species* was published a volume of essays by Anglican clerics. This was exasperating. Here there seemed to be treachery within the fold. *Essays and Reviews* seems to the present-day reader a singularly dull volume.[2] Nearly all that shocked its first readers has become a commonplace of present-day theology. But it was the extreme limit of the Christianity of 1860. There is nothing in it on Darwinism. But the volume accepted the results of geological study, and the German theories about the nature of Scripture; and not a single bishop of the English bench was willing to defend the authors.

It is, therefore, rather surprising that the next stage in the development should have been occasioned by an episcopal hardihood. For nineteenth-century bishops were usually no more inclined to risk their reputations than present-day ones. It was a Colonial bishop, it is true, who was involved. Colenso was appointed in the year 1853 to the Bishopric of Natal. A man of strong personality, he soon came into conflict with Gray, the Bishop of Capetown, his Metropolitan. At first the conflict arose out of a purely practical matter—Colenso's attitude towards the heathen of his diocese. He was faced with a large Kaffir population, many of whom wished to embrace the Christian Faith, and the question arose as to whether it would be possible to break with tradition, and to baptize these heathen without compelling them to abandon polygamy. Colenso proceeded to give them baptism unconditionally and thereby incurred the wrath of the orthodox. Colenso's views on the nature of the Atonement, which he expounded in a *Commentary on Romans* (1861), were also thought to be unsound. But it was mainly the work on the Pentateuch which caused the stir. This was published in sections over a long series of years (1862–79). It is far from perfect as a work of scholarship. Not only is it diffuse. Colenso probably did not know when he started the work how he would complete it; and in point of fact the plan changed as the book progressed. But it is important in that it accepted all the "results" of German criticism and exercised an enormous influence in introducing them to English readers.[1]

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[1] Houtin, p. 197.

[2] This remark must not be taken to include Mark Pattison's Essay. But this essay is of an historical character.

The main theses which Colenso defended—they are taken from his *Life*[2] by Sir George Cox—were the following :—

"(1) That only a very small portion, if any, of the Pentateuch can have been composed or written by Moses or in the Mosaic age.

(2) That Moses may have been the real guide of the Israelites from Egypt to the borders of Caanan, or a personage as shadowy and unhistorical as Æneas in the history of Rome or our own King Arthur.

(3) That Joshua seems to be an entirely mythical character.

(4) That there are two or more different and self-disproving accounts of the Creation, Deluge, and other events or incidents in the Book of Genesis.

(5) That the priestly legislation of the Books of Exodus,

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[1] For a judicious estimate of Colenso, see T. K. Cheyne, *Founders of Old Testament Criticism*, pp. 195–204.

[2] Preface, 2nd edition, p. vii.

Leviticus, and Numbers belongs to the time of, or to a period subsequent to, the captivity of Babylon.

(6) That the Book of Deuteronomy was composed in the reign of Manasseh, or in that of Josiah.

(7) That the Books, so called, of the Chronicles were written at a time later by some centuries than the Babylonish exile.

(8) That the history of these Books of Chronicles is not, as it professes or is supposed to be, a trustworthy narrative, but a fictitious story, put together for a special purpose."

We have thought it worth while to give this summary as it admirably illustrates the position which criticism had reached in the seventies of the last century.

In its earlier stages Biblical criticism aroused hostility mainly in its dealings with the Old Testament. But it was only natural that it should be likewise applied to the New Testament. Here it was less easy to reach definite results. One reason for this is that whereas the Old Testament literature was spread over centuries, that of the New Testament was spread only over decades. Moreover, there were no assertions in the New Testament so blatantly at variance with natural science as those in parts of Genesis. The New Testament documents, further, had to be estimated almost solely by internal criteria. There was to all intents and purposes no other literature outside the New Testament writings which bore at all directly upon them. Taken together, these facts made it far more difficult to reach definite "results" on the subject of New Testament criticism.

But the attacks on the traditional view of the Old Testament had one important consequence in the matter of the Gospels. Did not Our Lord appeal to the authority of the Old Testament? And if the critical view of these books was to be accepted, did this not mean that He was in error on a matter of history? Three such instances of His apparently assuming the traditional authorship of the Old Testament were (i) His ascription to David of the words in the Psalter " The Lord said unto my lord, Sit thou on my right hand till I make thine enemies thy footstool " (Mark xii, 36); (ii) His belief in the historicity of the flood, as implied by such a saying as " But as the days of Noe were, so shall also the coming of the Son of Man be " (Matt. xxiv, 37) ; and (iii) His belief in the historicity of Jonah, as implied by " A wicked and adulterous generation seeketh after a sign ; and there shall no sign be given unto it, but the sign of the prophet Jonah " (Matt. xvi, 4). It was soon realized both by conservatives and liberals that it was not possible to hold the critical view of the Old Testament and the *prima facie* inerrancy of Our Lord in matters of science.

It was to this particular problem that the *Lux Mundi* school turned their attention, and their volume constituted the next great step forward in the direction of Theological Liberalism. The earlier advances in the direction of liberalism had come mainly from the Broad Church school. The important thing about *Lux Mundi* (1889) is that it emanated from men who stood in the Tractarian tradition. Its editor was none other than Dr. Charles Gore, then Principal of Pusey House. It is particularly the editor's own essay—on the nature of Inspiration—that concerns us here. In it Dr. Gore recognized that the Catholic doctrine of the Incarnation—and the volume in question was, on the dogmatic side, of undoubted orthodoxy—was not bound up with any particular view of the Old Testament. Even those words of Our Lord which—taken *au pied de la lettre*—imply the historicity of Old Testament narratives do not necessarily foreclose questions of authorship.

Theories which recognize these limitations of Our Lord in His Incarnate Life have come to be described as Kenotic Theories. The name is taken from Philippians ii, 7 (ἑαυτὸν ἐκένωσε)—though whether or not this passage itself implies a " Kenotic " view is a matter about which there are differences of view. Such theories had considerable vogue on the Continent in the nineteenth century.

Among their chief supporters were Thomasius (d. 1875) in Germany and Godet (d. 1900) in Switzerland. Dr. Gore popularized them in England through a number of his writings; it is in the essay on "the Consciousness of Our Lord" in the volume entitled *Dissertations* (1895) that he expounded them most fully. In this essay he writes about the Incarnation that "The Son of God, without ceasing to be God, the Son of the Father, and without ceasing to be conscious of His Divine relation as Son to the Father, yet, in assuming human nature, so truly entered into it as really to grow and live as Son of Man under properly human conditions, that is to say also under properly human limitations. Thus, if we are to express this in human language we are forced to assert that within the *sphere* and *period* of His incarnate and mortal life, He did, and as it would appear did habitually—doubtless by the voluntary action of His own self-limiting and self-restraining love—cease from the exercise of those divine functions and powers, including the divine omniscience, which would have been incompatible with a truly human experience."[1] And Dr. Gore showed how such a theory as this would alone explain those passages in the Gospels which speak of Our Lord's ignorance and of His growth in wisdom.[2] He also pointed out that there were a considerable number of theologians of unsuspected orthodoxy (particularly in the Patristic Age) who had believed that Our Lord's ignorance as described in the Gospels was true, and not feigned, ignorance.

It is clear that with the acceptance of this view of Our Lord's knowledge, the last objections to the critical view of the Old Testament disappeared.

We have so far traced very briefly the history of the gradual acceptance of the critical view of the Old Testament in the Church of England. To-day, there is hardly any responsible scholar who denies the results of Criticism. We have only been able just to touch on the *results* themselves; the reader who wishes to learn them may be referred to *The New Commentary on Holy Scripture*, published by the S.P.C.K. But it is interesting to note that the gradual acceptance of the new views took place only after a long and hard-fought battle. The conflict was fiercest at Oxford in 1860; but one of the protagonists, Huxley, lived to a time when the attitude taken up by ecclesiastical authorities had considerably changed. By the nineties, even bishops were beginning to accept the new views, and in 1894 Huxley could write: "Thirty years ago, criticism of 'Moses' was held by most respectable people to be a deadly sin; now it has sunk to the rank of a mere peccadillo."[1] At the present time, to criticize "Moses" seldom evokes among the educated any consciousness of sin at all.

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[1] *Dissertations*, 1st edit., pp. 94 f.

[2] Cp. Mark xiii, 32; John xi, 34; Luke ii, 52, etc.

It is evident that the new view of the nature of the inspiration of the Old Testament removes all the more formidable difficulties against the compatibility of the results of science and the teaching of the Bible. To-day we realize frankly that we do not expect to find any statements of scientific value in the Old Testament. Occasionally, indeed, one does come across attempts at a very modified harmonization. The successive days of Genesis, for example, are supposed to correspond in some strange way with the steps of the evolutionary process. But once the true nature of the new view of the Old Testament has been appreciated, such rather feeble apologetic is far better abandoned.

It is evident from the preceding considerations that almost within living memory the traditional doctrine of Scripture has been profoundly changed. We may well consider, in conclusion, what attitude liberal and educated Catholics should adopt to the Biblical records.

(i) There is no doubt that as historical documents the Scriptures will always continue of supreme importance. To all intents and purposes we know nothing of the life and teaching of Jesus of Nazareth except what is contained in the pages of Scripture. There are a few recorded sayings of His which have been discovered at Oxyrhyncus, and which may possibly be genuine. Here and there in the Apocryphal Gospels some genuine reminiscence of a saying or action of His may have survived embedded in a mass of what is evidently mainly mythology. But compared with the vast amount of material which the New Testament contains, these details are negligible in extent, and add practically nothing to the picture presented by the Gospels. It is on the Gospels alone that we are dependent for our conception of the life and teaching of Our Lord.

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[1] *Science and the Christian Tradition*, Preface, p. xi.

In saying this, we do not mean to assert that the Gospels contain a picture which is minutely accurate in all its details. The different forms in which what is evidently the same incident is recorded in different Gospels makes it quite clear that there are a number of inaccuracies—unimportant perhaps, yet inaccuracies, nevertheless—even in the Synoptic records. And these inaccuracies are not due merely to forgetfulness on the part of the Evangelists ; in some instances the record of a saying or an incident has been consciously modified in order to make it more conformable with a preconceived conception as to how Jesus ought to have spoken or acted. Most students believe that in the Fourth Gospel these modifications have been carried to a far greater extent. But when all is said, there is no doubt that the Gospels—or at any rate the Synoptic Gospels—present us with a picture of a character and life which in its main outlines is clearly defined ; and it is only with wilful blindness that a man can turn to the pages of the Gospels and not find in them the portrayal of a figure from which he can derive at the very least much inspiration and guidance.

Only second in importance is the picture which the writings of the New Testament give of the development of early Christianity. The Christian can never be indifferent to the way in which his religion developed in its early stages. The New Testament records incidents in its growth from a small sect in Judaism to a religion which possessed at least isolated communities over nearly the whole of the then civilized world. Here again the Scriptures are almost the only source for the history of first-century Christianity. Compared with the material in the Acts and the Epistles and Revelation, that deducible from stray references in Jewish and pagan historians is negligible.

There can, then, be no question of jettisoning Scripture if only because of its supreme importance as history.

(ii) A further reason for the need for careful study of the Scriptures is the enormous place which they have occupied in the development of Christian thought and piety. From the second century onwards, practically all the great thinkers and saints have been immersed in the language and thought of the Biblical writers. One of the chief difficulties with which the modern student is faced in reading the classical Christian writers is that he does not normally possess anything approaching their detailed familiarity with the contents of the Bible; the consequence is that he frequently misses the point of allusions which would be perfectly clear to the author's original readers. There can be no doubt that this familiarity on the part of the classical Christian saints with the Scriptures has had a profound influence on the forms which Christian thought and piety assumed. Like poets and painters and musicians, theologians and saints are dependent on their predecessors for their modes of expression. If the Christian thinkers and mystics had not studied and loved the Bible, there can be little doubt that Christian thought and piety would have developed on different and less uniform lines than it did.

Consequently, the Christian of to-day who treasures the piety of his forefathers, and wishes to direct his own communion with God along the lines of the vast mass of Christian experience, can never afford to neglect the study of the Scriptural writings.

(iii) But when all is said, there remains the need for treating the Scriptures with respect and piety, but with *intelligent* respect and piety.

It is easily possible for reverence for Scripture to degenerate into superstitious regard for it. As we saw above, there has long been a regard for Scripture which it is not easy to acquit of this charge. It has been not dissimilar to the reverence accorded at other times to relics and shrines. But such reverence may easily be misplaced. The Christian religion is based ultimately on devotion to God, and His Revelation in a Person ; and to transfer that devotion from Him to anything less than Him is clearly unfitting. If we believe that Jesus Christ is the Truth, then our primary devotion must be due to Him, the Truth, and all that shares in it ; and consequently to things such as Scripture, where there is admittedly error as well as truth, our devotion can extend only in so far as they contain the truth.

(iv) Finally, in what sense is it true to speak of the inspiration of Holy Scripture ? The traditional theory was the Bible was fully and absolutely inspired from cover to cover, and that even the apparently most unedifying passages of Holy Scripture were inspired in a way which transcended that in which every other document was inspired. Even the enlightened Leo XIII reiterated this conception of Biblical inspiration in his Encyclical *Providentissimus.* This encyclical, deploring the appearance of higher criticism—*genus criticæ sublimioris*—asserted that the whole of Scripture, with all its parts, was written at the dictation of the Holy Spirit—*Spiritu sancto dictante ;* and that in consequence of this Divine dictation, all error is excluded, since it is necessary that *Deum summam Veritatem, nullius omnino erroris auctorem esse.* Such a mechanical conception of Biblical Inspiration must be rejected, simply because it is in evident contradiction with the facts.

The only theory of Scripture compatible with modern knowledge is that which allows of degrees of inspiration.

That Scripture as a whole is more fully inspired than any other collection of religious documents (e.g., the Patristic writings or the Thirty-Nine Articles or the Decrees of the Council of Trent, or even the decisions of the Lambeth Conference) will be universally admitted. But this belief in the inspiration of Scripture as a whole does not commit us to belief in the fullest inspiration of all of its parts. It is hard to ascribe a greater degree of inspiration to some passages, or even books, in the Old Testament than to certain extra-canonical books, such as the *Confessions* of Augustine or the *Imitatio Christi* or the *Pilgrim's Progress*. And similarly the belief in inspiration commits us still less to the traditional authorship of the Biblical books. Whether S. Peter wrote only one or even neither of the epistles attributed to him does not affect, except in a minor degree, the question of their inspiration.

We can discover the inspiration of the Scriptural writings only by the appeal which they make to our religious consciousness. There is no reason for supposing that there exists any external guarantee of Scriptural inspiration. "The nature of inspiration," wrote Jowett, "can only be known from the examination of Scripture. . . . To the question, 'What is Inspiration?' the first answer therefore is 'That idea of Scripture which we gather from the knowledge of it.'"[1] Ultimately the test is not dissimilar to that which we use to determine the inspiration of any masterpiece. We believe a piece of poetry or music inspired when it "finds" us; and no external criterion will ever convince us to the contrary if it does not. If the highbrows din into our ears what inspiration there is in Scarlatti and the general public continues to find him meaningless, we shall not, if we are sincere, be convinced by any external test that he is preferable to Schubert. And so it is with Scripture. Here the appeal is ultimately to the religious (as opposed to the artistic) consciousness. And it must be here that the answer is found.

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[1] *Essays and Reviews*, p. 347.

CHAPTER VI

RELIGION AND PHILOSOPHY

AS was mentioned earlier, philosophy stands at a discount in the present age. Of the fact there is no doubt. To account for the fact is less easy. But two factors which have played a large part in determining the present *Welt-Anschauung* may be singled out as having contributed much to the present scepticism in the matter of philosophy.

The first of these factors is the growth of a historical consciousness. The era of history succeeded the era of reason. The eighteenth century looked back to a time in the long-distant past when men were all equal, and it regarded those differences which it observed between different historical races as, so to speak, super-imposed additions to a uniform substratum which all men once shared in common. Since then, these historical differences have come to be recognized as much more essential elements in human life. We are fairly convinced to-day that there never was a time when these individual differences did not exist. Anthropology reveals differences no less among primitive races than among civilized men. And the result of this discovery has been a relativization of culture in general. Instead of the attempt to find abstract principles —such as has always been the goal of philosophy—the historically orientated Modern World has been satisfied if it has discovered the method of historical development of any particular race or period. It is felt that all is essentially relative ; and that any attempt such as philosophy makes to attain absolute laws is bound to be unsuccessful, since history shows that no such laws exist.

The second factor which has contributed to the present distrust of philosophy has been the departmental tendency of modern science. Science, as was pointed out above, tends to an ever-increased specialization ; and this tendency leads men away from a view of the Universe as a whole. Investigators in the different departments of science have become concerned with subjects of an ever-increasing complexity ; and it is no longer possible for any individual scientist to be at home in more than one of these subjects. Consequently the man who attempts to co-ordinate these results—and the philosopher must attempt such co-ordination—is bound to be dealing with a number of subjects with which he has only a limited familiarity ; and not unnaturally he is exposed to criticisms by the " experts " of the several sciences in turn. The "expert" often judges of the philosopher purely by his ill success in his own particular branch of highly specialized research ; he discovers that the philosopher has here " dropped a brick " ; and the "expert " distrusts and discredits the intruder in claiming to be judge in all departments of knowledge.

Modern philosophy, as it now exists, is a tissue of " schools " and " tendencies." The disintegrating effect of specialization has been carried over even into the philosophic realm. Even pure thought cannot isolate itself from the influence of the *Zeitgeist*. In a few cases, this specialization has brought some fairly definite results ; as examples may be mentioned those which have been made along the border-line between mathematics and philosophy. But for those seeking an account of reality as a whole, this specialization has been disastrous. There are no generally accepted methods of approach, and no uniformity in the answers given, to the problems raised. And, consequently, any attempt, such as the present, to assert wherein the right and true method of approach lies is bound to be a matter of some controversy. But the matter is of so great importance that it is impossible to refrain from stating our views. The reader who is unfamiliar with modern philosophical literature must recognize that several of the contentions of this chapter would be disputed by the highest authorities in this field.

Our tradition in philosophy goes back to pre-Christian times. The main lines of modern European thought have developed continuously from the thinkers of ancient Greece of the sixth century before Christ. Of these Greek thinkers the two greatest were Plato and Aristotle, both of whom wrote in the fourth century, B.C. The tradition thus begun developed as the centuries went by ; and when an attempt was made to give a rational account of the Christian faith, this tradition in philosophy provided the language for it. When S. John, at the beginning of his Gospel, spoke of Christ as the Word of God, he was using a Greek expression, " Word " (λόγος), which had belonged to the technical vocabulary of philosophy since a century before the time of Plato. And the successive great thinkers of the Church directed their energies towards a synthesis between the Christian revelation and the highest achievements of human thought. The earliest writers to do this, of course, thought and wrote in Greek as did the writer of the Prologue to S. John's Gospel. But when the centre of gravity of the Church became displaced to the Latin speaking world, the greatest thinkers thought and wrote in Latin. The long succession of thinkers of the Middle Ages, known as the Scholastics, practically monopolized the tradition of thought in the West.[1]

The Middle Ages were the Golden Age of philosophic speculation. No one unacquainted at first hand with the work of medieval philosophy can have any idea of the magnitude of what it achieved. Of course, it had its limitations. The Middle Ages had no such knowledge of the natural sciences as we now possess ; and anyone who judges of the intellectual achievements of an age solely by its knowledge of atomic structure or by the distance which is believed to separate us from the furthest star will find the Middle Ages a period when intellectual achievement was very low. But from the point of view of pure thought, the capacity of the Middle Ages was astounding. The very difficulties in the production of books meant that scholarship was not merely reading and knowing, but thinking. Profundity was furthered, too, by the mode in which professors were appointed.[1] Anyone who wanted to become a teacher at a university had to draw up a list of theses which he was prepared to maintain ; and he had to undergo the searching test of defending them for several hours in a public place, where it was open for anyone who chose to challenge him. Abailard ruined the reputation of a famous teacher, William of Champeaux, by discrediting his view of the relation between the idea of a thing and the thing itself. William lost his pupils to Abailard in consequence, his lecture rooms were deserted, and in the modern world he would have found himself in the bankruptcy court. The result of these intellectual battles was a development of accurate thought and terminology such as history has never repeated. One whose modes of thought would naturally have led him to manifest little affection for the Middle Ages wrote : " Scholasticism, which in its logic, as in its ethics and in a part of its metaphysics, engendered a subtilty and precision of ideas to which the ancient thinkers were unaccustomed, has contributed more than is believable to the progress of good philosophy."[2]

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[1] There was, of course, a line of distinguished Arabian philosophers ; but they had their headquarters not in the West, but at Baghdad. On them, and the history of medieval thought in general, see E. Gilson, *La Philosophie au Moyen Age*,—an excellent elementary account.

Since the sixteenth century the two most influential figures in the sphere of philosophy have been Descartes and Kant.

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[1] Cp. H. Rashdall, *The Universities of Europe in the Middle Ages*.

[2] Condorcet, *Vie de Turgot*. Quoted, J. S. Mill, *Logic*, p. 11 (ed. Longmans, 1891).

They were both highly original thinkers ; and each of them has profoundly influenced succeeding philosophers. But unfortunately both of them started trains of thought which were to lead the work of philosophy increasingly further from the Scholastic attitude, and to direct thought along false tracks from which only now are there signs that it is beginning to emerge.

(i) For Descartes, the only entities in the world were mind and matter. Together they constituted the sole existents. And what is more they were absolute antitheses. Mind was *res cogitans*. Matter was *res extensa*. Between these two entities, the Universe was divided by a sort of Concordat, and each had, so to say, agreed not to trench upon the other's ground. The one point where they met was in the pineal gland in the brain, where the soul of the individual human body was located.

One of the most radical problems which interested Descartes was that of the relation between these two entities. How was it possible for mind to know matter ? And it is clear that here was a peculiarly difficult problem. It is not surprising that Descartes's answers were not very satisfactory. But the problem had been raised, and became the main problem for philosophy up to the time of Kant, and continued a living issue far beyond. The general tendency was, as a matter of fact, to exalt mind at the expense of matter, and to solve the dualism of Descartes either by finding some higher unity of a spiritual character which transcended both (Spinoza) or by definitely reducing the status of matter to that of mind (Berkeley). The point of importance here is that Descartes and his successors hardly questioned that the only realities were mind and matter.

Now this view is very widely held right up to the present day. It is easy for us, if we do not reflect very much, to suppose that the only " things " in the world are mental and material objects. If we are religious men we should, of course, include among the mental objects, God. But it may easily appear to us that when we have included God, we have surveyed all the " things."

Now it is true that these " things " are seemingly the most important for us in our practical dealings. Of course, we all have souls to save. And our life in the world consists largely in ordering and disposing and bartering with material objects. But if we reflect, and ask what right we have to limit the world to material and spiritual things only, we shall find it difficult to reply. And consideration of the problem will show us to be wrong. For besides the material and the spiritual there are other things which have just as much right to claim existence. Among these are such entities as the numbers, the colours, the ethical values, the principles of logic, and so on.

(ii) We saw that the great problem raised by Descartes was how it was possible for mind to know matter. This became the chief problem for modern philosophy from now onwards. There were two lines of tradition along which the problem was developed. The one was the so-called empirical tradition in England; the other the so-called rationalist tradition on the Continent. The importance of Kant consists in that he effected a synthesis between these two traditions, and in the character which that synthesis possessed.

With Kant European thought entered upon a new stage, though his interests centred in the same problem as had occupied the minds of his predecessors, namely, how it was possible for mind to know matter. To state the solution he gave is to raise historical controversies which have continued since the time that Kant wrote. The fact is that Kant held several different views of this as of other problems at different times, and no interpretation of Kant can ever represent more than one aspect of his many-sided thought.[1] In a famous passage in which he criticized Leibniz, Kant said that it was often possible for a great genius not to know exactly what his achievement was, and that it was left to his lesser interpreters to discover its exact character.

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[1] Cp. p. 53.

Critics have not hesitated to apply this maxim to Kant himself. His system is evidently a bundle of unreconciled contradictions, and if consistent doctrine is to be deduced from him, he needs interpreting. As Windelband, one of the Baden neo-Kantians said, *Kant verstehen Heisst über ihn hinausgehen.*[1]

Roughly, however, it is true to say that Kant held that mind and matter could be brought into a knowing relationship only because matter as we know it is ultimately constituted by mind. Numbers are mental forms, and seven objects when added to five objects make twelve objects, not because there is something in the objects which demands that they should, but because our minds are so constituted that they are bound to come to this result. Similarly, when we observe two successive events such as the striking of a match and the resulting flame, we say naturally that the one is the cause of the other. We naturally suppose that the striking and the flame are connected by some causal law. But really, Kant argued, this causal law is something which owes its existence to *us*. *Our minds* impress it on nature. "They prescribe to nature its laws."[2] It is clear that on this interpretation the process of knowledge is thoroughly *subjectivist*. And Subjectivism is the second fundamental error of much modern philosophy.

Before proceeding, we must point out that this Subjectivism of Kant has a close connexion both historically and systematically with the theology of Luther. Just as Kant transferred the centre of gravity of speculative thought from the external world to the subject which knows it, so Luther had earlier transferred the centre of gravity of religion from God to the individual. The essence of religion for Luther consisted in personal experience. His central idea was that of justification by faith and the definite experience which the consciousness of such justification occasioned. All external rites were distrusted because they tended to imperil the autonomy of the experience of the soul. In this way Luther gave early expression to a tradition of subjectivism which was to envelop German lines of thought up till Kant and beyond. There are clear affinities in many of Kant's doctrines with those of Luther, though Kant carried Luther's subjectivism much further. By Kant God is no longer conceived as the *ens realissimum* as He had been conceived by the Scholastics. In so far as Kant believed in an *ens realissimum*, he would have found it in the self. God is in fact subordinated to the demands of the individual moral life. The fundamental concern for Kant was the existence of freedom and morality; and God (and incidentally also immortality) were introduced only as the implications of morality and as subordinate to it.[1]

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[1] "To understand Kant means to advance beyond him."

[2] *Prolegomena zu jeder künftige Metaphysik*, § 36. Der Verstand schöpft seine Gesetze (*a priori*) nicht aus der Natur, sondern schreibt sie dieser vor.

From this Subjectivism, which through the enormous influence of Kant (and those immediately dependent on him) had penetrated most of European philosophy by the end of the last century, there has grown up and developed a realist movement in opposition to the philosophic idealism of the preceding century. In many respects, this new movement has been hostile to religion. Among one of the first to secure recognition for it in this country was Mr. Bertrand Russell. Mr. Russell first achieved fame as a mathematician. And when we mention that present-day realism was largely the result of mathematical investigations, we have indicated its character. As hinted higher up, we no longer regard the mathematical entities as subjective forms, as did Kant. Nor again do we believe that they are objective in the sense that they are " abstractions " from real objects such as chairs and tables.

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[1] It is interesting to contrast Kant's idealism with that of Berkeley. It is clear that for Berkeley God was the most real spirit, and that the other minds were dependent upon Him. With Kant the interest centres in the individual mind, from whose structure God is a deduction.

Numbers, according to the new realism, are entities which are objective and yet not material. The new realism, at least in some of its forms, holds that the world of reality is a world which includes mathematical relationships, ethical values, material objects, no less than God and the human spirits, and that to all of these entities there attaches existence. Certain thinkers may deny the existence of certain of these entities; Mr. Bertrand Russell, as is well known, denies the existence of God. But, whatever his denials, there is no doubt that he represents a totally different way of approaching questions of reality from that which has been dominant as the result of the influence of Descartes and of Kant. Of the latter, Mr. Russell has recently said that " he deluged the philosophic world with muddle and mystery from which it is only now beginning to emerge. Kant has the reputation of being the greatest of modern philosophers, but to my mind he was a mere misfortune."[1]

This reaction, for such it is, is a return to ways of thought which are closely allied to Scholasticism. And on the Continent this connexion is becoming recognized. Much the most influential movement in German thought since 1900 has been that connected with the name of Edmund Husserl. Husserl, like Russell, set out from the philosophy of mathematics. And in a similar way, by investigating the *meaning* of the mathematical and logical laws—which, in common with Russell and Leibniz, he practically identified—he was led to a theory of reality which was closely allied to the Platonic realism of the Scholastics.[2] Max Scheler, perhaps his most famous disciple, was led to see increasingly the relationship between the phenomenological philosophy and traditional Catholicism, and became a member of the Church; and, as such, wrote a number of works in defence of a Catholic philosophy of religion. As a result, it is to-day fairly clear, even to those who have no interest in its theological implications, that behind the somewhat theologically coloured answers which Scholasticism gave to the problems of metaphysics there is a kernel which does not depend on the theological colouring; and that this kernel is of absolute value.

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[1] *An Outline of Philosophy*, p. 83.

[2] Husserl repudiates the " charge " (*Vorwurf*) of Platonic Realism —cp. *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie*, § 22; but it is clear to nearly all, both of his followers and of his opponents, that the whole tendency of his thought is in this direction. The present writer hopes to treat in print before long of the relationship between the phenomenology of Husserl and the philosophy of religion.

It is customary for those who are considering the bearing of philosophy on religion to say something about the relation of God to the Absolute, so perhaps a few words on this subject will not be out of place here.

The term "Absolute" is (it must not be forgotten) practically a *terminus technicus* of the Hegelian School.[1] The philosophy of Hegel was, roughly speaking, the Pantheism of Spinoza, profoundly modified under the influence of Kant. It may be described, that is, as a philosophy of Immanence. Whatever is, goes to make up an all-inclusive Whole[2] or Absolute; and the philosophy in question is known in consequence as Absolute Idealism. The Hegelian School generally subordinated religion to philosophy. Bradley, for example, found in religion a number of contradictions. On the one hand the religious man could never attain his goal until he was united with his God; on the other hand, religious experience always implied an essential differentiation between man and God and so rendered such union impossible. Consequently, the conceptions of religion fell short of the acid test of reality, namely (for the Hegelians), absence of contradiction. This subordination of religion to philosophy involved for Bradley the subordination of God to the Absolute. God was but an entity in the all-inclusive Whole.

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[1] This is not to deny that the word is used occasionally by earlier writers in reference to the Ultimate Reality. Thus for St. Thomas God is *absolutum secundum quod in se est.*

[2] It is not clear whether the capital W generally used to describe it is a tribute to its exalted character or an indication of the country and language with which the conception originated.

For those modern Christian theologians who were profoundly influenced by the Hegelian revival, the problem of the relation of religion to philosophy took shape as the problem of the relation of God to the Absolute. An instance is to be seen in Dr. Moberly's essay in *Foundations.* But now that Hegelianism is ceasing to be a living force, the problem assumes a different form. The problem has ceased to be immanental and there are indications that a doctrine of the Divine transcendence will be as natural as in the pre-Hegelian era. A notable instance of this return to such a doctrine is to be found in the philosophy of Professor Whitehead, who holds that God and the world stand very much in the relation in which Christianity has explained them by its doctrine of Creation. This is not to deny that there is still the question as to how far it is possible to identify the God discovered by the religious consciousness with the First Cause (or whatever other expression be thought most adequate to describe it) demanded by metaphysics. But it is at least misleading to use the term Absolute in this connexion if the Hegelian philosophy has been abandoned.

What may we say, then, of the relation of God to the World?

Of the doctrine of Creation, something has been said already. The view held by traditional Christian orthodoxy is, we mentioned, that contained in essence in the first chapter of Genesis; and we stated that we believed that this view is the only one which is ultimately Christian. It asserts two fundamental propositions. The first the world was *created*; the second that it is " very good."

Something must be said of this doctrine of the goodness of the world. If God created the world and all that is, it follows as a necessary corollary that the world and all that is is good. This belief in the essential goodness of creation soon found its way into Christian philosophy. It was widely held by earlier writers. But it was S. Augustine who first worked the theory out. S. Augustine's early life had forced the problem upon him. Prior to his conversion he had been for long years a Manichee, and the Manichees held that matter was essentially evil. Consequently when S. Augustine violently reacted against this view of the Universe, he was bound to face the question of the goodness or badness of created being. And in the view that he adopted he was profoundly influenced by Platonism. The best Platonic teaching had always held that matter was good—that all evil was negative. And that view S. Augustine whole-heartedly adopted. It is to be found worked out in his early dialogue the *De Ordine* (386)—one of few systematic Patristic expositions of the teleological argument. Here the essential goodness of the world is shown to be bound up with the existence of God. " What else is evil," S. Augustine asks in another place, " except deprivation of the good ? "[1]—thereby anticipating the phraseology of the Scholastics that evil is essentially an *ens privativum*. S. Augustine's view was followed consistently by successive thinkers. If pressed, it could easily be interpreted in a pantheistic direction ; an instance of such a pantheistic rendering of it is to be seen in the *De Divisione Naturæ* of Scotus Erigena. But by the stress it laid on the fact that God was the *summum bonum*, whereas created things were only less *bona*, it usually sufficiently safeguarded the difference between the Creator and His creation. It held that we were created in the image of God, that we had partaken in the Logos, and that we need not therefore be hesitant to acknowledge our kinship with the Divine.

It is this view of the nature of reality which still seems best suited to the demands of philosophy, and especially of Christian philosophy. Since the Reformation, Platonism has, as we have seen, been largely set aside. But with the new movement in philosophy, which is largely a return to Platonism, we may expect a revival of a doctrine of degrees of reality. Curiously enough such a doctrine is usually associated now with the name of a thinker of a very different philosophical tradition. In Bradley's later writings he developed the doctrine at some length. But ultimately the doctrine is Platonist ; and it is certainly not bound up with the more specific tenets of Bradley's philosophy.

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[1] *Enchiridion*, cap. 2.

It is probably with such a conception of the relation of man to God that the problem of Christology has to be faced. The Council of Chalcedon (451) did a great work on the negative side. It condemned a number of attempted solutions of the problem, none of which was adequate to the interpretation of the Person of Christ. It simply reaffirmed the doctrine of S. Leo's *Tome*. This Epistle maintained that in the Incarnate Christ there were a series of antitheses, and between them S. Leo made no attempt at reconciliation. God and man were set as absolute opposites ; and the problem was left by saying that Jesus Christ was fully the one and the other. But in so doing, the problem was essentially left unsolved.

What hardly any of the Fathers ever questioned was whether they might not have been mistaken in supposing this antithesis to be absolute. The doctrine of degrees of reality which was so deeply rooted in Patristic metaphysics, found practically no place in Patristic Christology. To this statement there is one exception, however. That exception is Apollinarius. As in the case of many another heretic, over-orthodox zealots have deprived us of most of his writings. But a few isolated statements which survive[1] indicate that Apollinarius was on the right track in the matter referred to above.[2] He seems to have regarded the Logos as the Archetype of humanity and to have held that " human nature . . . was in a sense coeternal with the Logos, not something adventitious, but something essentially

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[1] Some of them are collected by Dr. Ottley, *The Doctrine of the Incarnation*, pp. 376 ff.

[2] This is not to deny that in other respects he may have been heretical.

'consubstantial and connatural'" (συνουσιωμένη καὶ σύμφυτος) with Him.[1]

Along such lines as this, the Christological problem needs to be envisaged. If we approach the Patristic treatment of the subject with this conception in our minds, we may expect to get considerable light thrown on the problem. For in spite of their limitations in the respect just mentioned, the Fathers had one great advantage over many modern thinkers. They treated the Christological problem —perhaps they could not have helped doing so—as a problem for metaphysics, and not, like many moderns, as a problem for psychology or for history. They would have recognized at once that such theories as Dr. Sanday's view that the *locus* of the Godhead of Christ was to be sought in the subconscious, or Kenotic theories which think that the problem can be *solved* by explaining how Our Lord was ignorant, were wide of the mark. Their recognition of the essentially philosophical character of the problem and the lines which they lay down at Chalcedon as to the limits of a solution make their treatment of it of permanent value.

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[1] Ottley, *ibid.*

CHAPTER VII

RELIGION AND THE LIFE OF THE SPIRIT

IN the preceding chapters we have attempted to consider some of the more popular current objections made against the Christian religion. On every side the Church has been surrounded by foes. The growth of an age of science drew her into a conflict for which she was quite unprepared and for which she certainly had no relish. And it is not surprising that in such circumstances her tactics were often halting, often wrong. She had constantly to be on the defensive, and her battle took on all the defects of defensive warfare. She was again and again forced to abandon positions which proved untenable ; and the man in the street came to believe that the victory for science was only a matter of time. We have been led in the preceding chapters to consider some aspects of this battle, and ourselves to adopt an attitude of defence. In the present chapter we propose to embark on a more positive course.

Religion is not primarily something to be proved. It is first and foremost a way of approach to the Universe. What does this mean ?

From our earliest dawning consciousness onwards, life is for every one of us a series of experiences. These experiences are, as far back as we can trace them, of a very varied and manifold character. There are first the ordinary experiences of sensation—of touch, of taste, of sight, and so on. But these together constitute only a fraction of our total experience. There are experiences of will and of thought, even in earliest childhood. And then again there are still more complex experiences, æsthetic and even religious experiences. To the latter, the child is at least as susceptible as the adult.

" Not in entire forgetfulness,
And not in utter nakedness,
But trailing clouds of glory do we come
From God, who is our home ;
Heaven lies about us in our infancy ! "

So it is all through life. We are ever experiencing. And these experiences reveal to us all that we can apprehend of the reality of things which lie outside us. It is through the avenue of experience alone that we can ever come into touch with the world of the real.

Consequently, when we are studying questions of Ultimate Reality we are necessarily forced back to our experiences as our basic data. We cannot arrive at any facts more primitive. Experience goes deeper than intellect, for it includes intellect, and by its means we can apprehend those elements in human life which are not reducible to intellectual terms. It offers us, in fact, a number of possible ways of approach to reality—through the intellect, through the will, through the artistic impulse, through the religious consciousness ; and men have insisted that now the one, now the other of these, is the gateway through which we must enter if we are to get into contact with the Ultimate.

Each of these ways of approach has its own laws. In each there reigns a system of principles or categories. There are the Principles of Reason and Logic, the Principles of Moral Choice, the Principles of Art, the Principles of Religious Evaluation. And the natures of these principles can themselves be understood and apprehended only through direct experience. Instances of these principles are such as demand that things which are equal to the same thing are equal to one another, that heroism is morally preferable to cowardice, that music is a revelation of reality, that the religious man seeks to express his relation to his god in adoration. Yet you can never *prove* the existence of any of these principles. They are all data which come through direct experience, which are intuited. Every right-minded man *sees*, intuits, these and other such principles which lie at the basis of their respective spheres ; and if he does not see them he is intellectually, morally, artistically or spiritually " blind," as the case may be. If he is blind in any one or more of these respects, he is comparable with the man who is red colour-blind, and does not " see " red objects.

This point is of so great importance that we may be allowed to dwell on it. We cannot possibly reach any other certainty than what comes to us through experience. To accept the witness of experience is the one anchorage against absolute scepticism. There is nothing intrinsically absurd in absolute scepticism as long as the absolute sceptic remains sceptical about the scepticism itself. (If he doesn't, he ceases to be sceptical about one proposition, namely, the proposition that absolute scepticism is true). But there is an enormous amount of evidence which points in the other direction. Would it not at least be an extraordinary phenomenon that with negligible exceptions (of lunatics, for instance) everyone is agreed that the square of three is nine ? And similarly with our artistic and moral judgements. The fact that those who have any appreciation of beauty are agreed in the main that the same objects, for example, a field of daffodils, are beautiful[1] is at least a strong indication that in their artistic judgements they are describing something that has objective reality.

Is there, then, anything corresponding to such intellectual, moral, and æsthetic judgements in the sphere of religion ? The only answer we can give is that there most assuredly is.

Religion is something which is essentially different from logic or morality or art, and all attempts to reduce it to any one of these three activities, or to a combination of more than one of them, overlooks the specific nature of the religious experience. For those who are concerned with the theoretical interpretation of religion, the temptation is especially great to reduce religion to an activity of an intellectual character, and to insist accordingly that the highest end of religion is dogmatic correctness. We may get a clearer apprehension of the nature of the problem by considering some of the modern movements of religious thought which have a bearing upon this subject.

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[1] This is not to deny minor variations in artistic judgements, e.g., the varying judgements of Epstein.

One of the anti-dogmatic movements is that which has adopted the philosophy of Pragmatism. As it included several of the Catholic Modernists of France—who in some ways made a very magnificent attempt to reconcile Catholicism and modern science—it will inevitably interest those who are attempting to do the same. And as some of the views asserted further on in this chapter may appear at first sight to have some affinity with it, it demands some attention.

What, to begin with, is pragmatism? It is difficult to state fairly or convincingly a theory which you believe to be indefensible. But roughly the position which the pragmatist maintains and the arguments by which he defends it are as follows.

The principle of evolution, it is contended, is that of the survival of the fittest. To this principle, whatever exists owes its existence. This is the ruling principle in the mental no less than in the physical life. When the individual is forced to choose between two courses of action, the course which he inevitably tends to choose is that one which tends towards his survival; if he were to elect to follow the other course, the chances are that he would suffer extinction to the advantage of some of his neighbours who had chosen the course which tended to survival. Now not merely does this principle determine our volitions. It determines, too, our theoretical judgements. Naïvely (so it is held) we believe that two and two when added together make four. But this belief is only another instance of the "survival of the fittest." As a matter of actual experience, it has been found that to assume the equivalence of $2 + 2$ and 4 has been of great survival value. It has been a suitable basis of bargaining, and society has rejected those who have tried to bargain on the basis of $2 + 2 = 5$. But there is no reason in the nature of things why a different system of arithmetic should not have been developed. In fact, had such a system proved of greater convenience and more suited to primitive man's economic needs it would have been adopted.

What holds of mathematics holds equally of all other truth. Truth at every turn is subordinate to practice. Necessity is not merely the mother of invention ; it is also the mother of all theory. No assertion is true except in so far as it satisfies the needs of human life.

Such is pragmatism. We pass now to criticism. And the fundamental retort rests on the evidence of direct intuition. This reveals that truth is in fact singularly unconcerned with human needs. And nothing shows this more clearly than the world of mathematics. The mathematician realizes that what he discovers has existed from all eternity. The modern geometries, for example, are not treating of truths which were devised in the last century. The truths with which they deal had existed ever since the world began—if not longer. Mathematical truth has existed for all time ; it has always been there to be discovered, though it would be possible to count on one's fingers those who have understood some specialized branches of mathematics. And yet no sane person[1] doubts that mathematicians mean to deal with truth ; and you cannot regress behind meaning.

These considerations seem to refute pragmatism, considered purely as a philosophical theory. But its importance does not end here. For it is evident that, if it were true, it would be a very useful weapon for the purposes of religious apologetic. And a certain group of (mainly French) thinkers—who came afterwards to be known as the "Modernists"—who had become convinced of the pragmatist position applied it to the philosophy of religion.

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[1] Probably even the pragmatists are to be included, except when they are consciously pragmatising.

Religious theory, as has been seen, has frequently found itself entrenched in untenable fortresses, and those who have been concerned to maintain its absolute truth and its absolute unchangeableness have sometimes found themselves in serious straits. In such case were the Roman Catholic theologians of the latter part of the last century. The intellectualism of S. Thomas had led them to attach an undue importance to the intellectual and rational side of Christian theology; and, further, those who held an evolutionary theory of Christian dogma, such as Petavius and later Cardinal Newman, were looked at askance. The Roman theologian of the nineteenth century was faced with a large body of propositions, all of them supposedly irreformable.[1] Together these propositions constituted the faith once delivered to the Church, and of this faith there was never the possibility of the abrogation of a single doctrine. And yet the age of science had discovered that some elements in this doctrinal *corpus* were no longer tenable. What simpler method could there be of meeting this *impasse* than by invoking the aid of the pragmatists, by declaring that all truth, and consequently dogmatic truth too, was relative to something higher, namely, its practical effects?

Along such lines as these the Pragmatist Modernists interpreted the dogmas of the Church. Experience showed, so they maintained, that in spite of the doctrinal difficulties which the Modern World created, the spiritual life of the Christian could go on unhindered. The monastic life still produced its saints, the confessional still released the penitent sinner, the Holy Communion still nourished the humble soul, whatever the scientists might say about difficulties in matters of doctrine. Here were facts of experience of an undeniable character. And the only interpretation of these facts, according to the Pragmatists, was to recognize the subservience of dogma to the Christian life. Dogma, like all other theory, is true only in so far as it is adequate to experience and life. The primary fact about the Eucharist, for example, is a fact of experience, namely, that in it the faithful partaker discovers that he shares in the Body and Blood of his Lord. Theories about the mode of his Lord's presence or the manner in which the Sacrament confers grace to his soul are secondary in nature, and whatever doctrine may be held on either of these subjects, it leaves the facts unaffected. The truth of a dogma must be determined not by its intellectual consistency but by its adequacy to the Christian life. And consequently, though the intellectual expression of dogmas remains a constant factor in Christian tradition—though, that is, those truths formulated in the Creeds, in the Scriptures, through the Councils or through the Pope, are strictly irreformable—yet the *content* of those dogmas is ever changing. To quarrel with Catholic doctrine because of its seeming contradictions with the intellectual enlightenment of an age of science is to mistake the shadow for the substance. Those who have once appreciated the real nature of the relation between dogma and religion will regard such conflicts between science and religion as little more than verbal quibbles.

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[1] It would be interesting to trace the history of this word. Does it go back to the Conciliar Movement in the century preceding the "Reformation"? If so, it is probable that the static conception of theology in the Roman Church was largely fostered by the supposed deleterious results of a "reformable" system of dogma.

Our answer, again, to these contentions of the Pragmatist Modernists is that we believe that such a theory takes all meaning out of dogma. The dogmatic proposition that Christ was born of the Virgin Mary appears to us to be just as much an intellectual assertion as the proposition that London is the capital of England. If words mean anything at all, it is impossible to deny that all dogmatic propositions are essentially intellectual in character. In so far as they are true, like other intellectual truths, they are true by reason of corresponding with the facts which they describe. Their truth or falsehood stands out of all relationship to their practical consequences. If Christ were not born of the Virgin Mary, no demands of the religious life would make the assertion of the fact that He was into a true dogma; and if He were, no demands of the religious life would ever make the assertion untrue. Whatever practical implications truth may have in some cases, the truth or falsity of a proposition is a property which attaches to it quite irrespective of any practical implications.

We are merely reiterating the conclusion which we reached in the last chapter—that religious dogma, like scientific truth, belongs to the intellectual interpretation of Reality. As such, the respective areas of dogma and science overlap. There is bound to be a certain amount of territory common to both. Instances are the two accounts of the upper regions to which we have already alluded—the popular religious conception that in a world above the sky is located a heaven where Our Lord and the angels and saints are reigning, and the astronomical conception that there is no room in the Universe for such a place. If the former of these conceptions be described as a dogma, then we clearly have here an instance of a religious and a scientific dogma conflicting. And since we believe that two conflicting propositions cannot both be true, we are bound to reject either the one or the other. Consequently when we wish to judge of the truth of the large mass of dogmatic material with which we as Christians are presented—and we cannot avoid coming to some judgement about it—the only criteria which we can use are criteria essentially intellectual in character.

If we left the matter at this point, religion might seem a purely academic matter. Of course, such a conception is totally wrong. Religion is practised by millions who know hardly anything at all of dogma. This fact the Pragmatist

Modernists rightly saw—however much their interpretation of it may have been in error. Religion is no more based primarily on any intellectual theories than is art. The

> " sense sublime
> Of something far more deeply interfused,
> Whose dwelling is the light of setting suns
> And the round ocean and the living air,
> And the blue sky and in the mind of man "

is something which needs not and cannot have any intellectual explanation. At bottom religion transcends all dogmas, all creeds, all articles.

That this is so is becoming increasingly realized in the Church of England. When our forefathers took the oaths at their Ordination, they treated them *au pied de la lettre.* We do so no longer. Though we solemnly assent to the Thirty-nine Articles, we do not now believe that " works done before the grace of Christ and the Inspiration of His Spirit are not pleasant to God . . . yea rather, for that they are not done as God hath willed and commanded them to be done, we doubt not but they have the nature of sin."[1] Disbelief in certain articles in the Creed is not regarded by some bishops as a bar to Ordination. This does not mean that we are not thinking out our religious problems. The very fact that some of us object to certain of the Articles implies that we have thought about the problems. But it does mean that we are attaching less importance to religious theory as such, and not conceiving that dogmatic orthodoxy can be a substitute for the religious life.

To the religious life, then, dogmatic theology is subordinate. Much the same holds of ethical conduct. Religion of course, has ethical implications, and this fact is true *eminenter* of the Christian religion. The Gospels are full of ethical teaching ; and the author of the Epistle of S. James seems almost to reduce Christianity to obedience to moral precepts. But to say that the Christian system makes moral demands is a long way from equating Christianity and ethics.

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[1] Not dissimilar is our solemn oath to adhere to the forms prescribed in the Book of Common Prayer and no other except such as shall be prescribed by lawful authority, whereas we rightly adopt many occasional prayers from other sources.

Of those who have attempted to reduce religion to ethics, undoubtedly the most famous is Immanuel Kant. Kant's theory of knowledge was of such a character as to lead him to deny that we could ever have any satisfactory intellectual proof of the existence of God. In a well-known section of the *Critique of Pure Reason* he examined in turn each of three traditional proofs for God's existence—and Kant was careful to point out, in a manner which was very characteristic of him, that from the nature of the case there could not be any other speculative proofs of God's existence except these three—and he found that all of them failed to carry conviction. But, he went on to argue, though these speculative proofs are all defective, there is an avenue of quite a different character which can lead us to a conviction of the existence of God. That avenue is the moral consciousness. Only, he held, if we believe in the existence of God can we find any explanation of the facts of conscience. Conscience tells us in certain cases that only one definite course is morally admissible. However distasteful the course of duty may be—and Kant, it may be noted, thought moral action always distasteful though the lesser demands of morality might be less distasteful than the greater ones—the duty imposed its claims on the moral man with irresistible force ; it acted, in fact, as a Categorical Imperative. And this Imperative could be explained only on the assumption of a Law-Giver. That Law-Giver was God.

In this way morality and religion became for Kant identified. There was no strain whatever of the mystic in Kant. He held, very curiously, that hand in hand with progress in the moral life would be found to go the decline in the habit of prayer. No self-respecting man, he said on one occasion, would ever like his neighbour to discover him on his knees. The religious man is the man who has done his duty, who has fulfilled the whole law. And with this conception of the nature of religion, Kant set himself to reinterpret the Lutheranism in which he had been brought up as a system of pure morality. Those who wish to discover what he made of it will find it in his *Religion within the Limits of Mere Reason.*[1]

Now we do not find to-day many who hold such a rigidly moralistic view of religion as is to be found in Kant. Those who proclaim the doctrine of social righteousness as the aim of religion are not usually ascetics of the Kantian brand; they do not ordinarily rise with perfect regularity at five nor restrict their foreign travels to a radius of a few miles from their native town.[2] But this softening of the demands of ethics has not prevented them from holding a view of the nature of religion essentially similar to that of Kant. Religion, they tell us, consists primarily in ethical practice. The inauguration of the Kingdom of Heaven is to be accomplished by such works of social progress as the improvement of housing conditions and the abolition of wars. The essence of the Gospel message, it is argued, is to be found in the Sermon on the Mount, and the Sermon on the Mount consists solely in a number of ethical principles of universal validity. Such theories of the essence of Christianity are to be found almost *ad nauseam* at the present day.

All that we can reply to them is that it is simply not in this form in which religion presents itself in history or in fact. All those experiences of mysticism, of sacramentalism, of saving grace, have to go by the board if religion is nothing but the response to an ethical code. It leaves out of account whole chapters of the teaching of Our Lord. It renders the religion of S. Paul, of S. Augustine, of S. Thomas à Kempis, completely unintelligible.

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[1] Cp. also C. C. J. Webb, *Kant's Philosophy of Religion* (Oxford, 1926), where this treatise is discussed at length.

[2] Kant, in his whole life, never went more than fifteen miles from Königsberg.

Christianity in the first place, therefore, is neither a system of theology nor a scheme of ethical principles. Before all else, it is a religion. And, if we are to seek for an analogy to religion in a non-religious realm, we shall find the closest parallel to it in the realm of art. To say this, of course, suggests at once that religion is something " high-brow " ; and it is likely to evoke immediately the criticism that only anyone who lived in an atmosphere of academic unreality could maintain such a thesis. But this criticism, if urged, would be due to a mistaken conception of the nature of art. Art (as opposed to theories of art) is anything but limited to the " high-brows," as is clear, for instance, from the wide diffusion of music at the present time. In any back street of our cities is to be heard in house after house the gramophone and the loud-speaker—producing poor art, perhaps detestable art, but nevertheless, art. Yet no matter how degraded may be the type of music, music always remains essentially an art.

Now if the analogy between music and religion be considered valid, it will, we think, be found to be distinctly illuminating. Where, we may ask, can we find an intellectual explanation of music? What again are the practical implications of musical appreciation? Anyone who has ever thought of the meaning of a piece of music, who has tried to give a rational account of it, will know how insuperable the difficulties seem to be. He may be able to give some account as to how music developed. He may be able to trace it back to its beginnings in the savage ritual dance. Or he may be able to show how its attraction is connected with the sublimation of the sex instinct. But all such accounts only tell us *how* music arose. Not one of them tells us what it *is*. The explanation as to the mode of genesis of a thing can never give us the slightest information as to what a thing is. And when we come to ask what music is, why certain notes when played together constitute a harmony, and others constitute a discord, wherein the peculiar fascination of certain musical themes consists, we find we are face to face with one of the most baffling problems there is. If such problems are answerable, then there is little doubt that the answers, when discovered, will throw considerable light on the nature of religion, too. But until we are in sight of a solution of them, we need see nothing incongruous in supposing the basic problems of religion to be also beyond the range of our present reason. Their ultimate solution must be sought in the realm of religion itself. We may whole-heartedly assent to the assertion of a thinker with whom we have in another connexion expressed fundamental disagreement that " the man who demands a reality more solid than that of the religious consciousness knows not what he seeks."[1]

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[1] F. H. Bradley, *Appearance and Reality*, p. 449.

BIBLIOGRAPHY

FOR FURTHER STUDY

THE list of books given below is intended to direct the student to sources where he may find fuller information on the subjects of the present volume. Any intensive study of the subject demands that the student should familiarize himself with at least one branch of modern science; for this purpose, he must have recourse to the standard text-books and, if possible, he should take part in experimental work. Nothing will do so much as a few days in the laboratory to convince the student of the nature of a scientific fact. The following books all presuppose to a greater or less degree familiarity with scientific method :—

1. W. C. D. Dampier-Whetham, *A History of Science and its Relations with Philosophy and Religion.* Cambridge University Press, 1929.
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8. A. N. Whitehead, *Science and the Modern World.* Cambridge University Press, 1926.

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